SOVIET STRATEGIC AIRLIFT AND POWER PROJECTION

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by

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Within the past 15 years, the Soviet Union has developed a strategic airlift force capable of projecting Soviet power anywhere in the world. The development of this force is traced from the early years of the revolution, through the first tentative strategic airlift effort to Peru in 1970, to the invasion of Afghanistan in 1979. The Soviets learned a new lesson with each operation and a pattern of increasing capability soon emerged. Through case studies, this thesis evaluates the improvements in the Soviet strategic airlift force and its ability to support Soviet foreign policy objectives. The improvements are very impressive, but it appears that the Soviets will concentrate their efforts strategic control in Africa and the Middle East while retaining a capability to intervene anywhere with the VTA and Aeroflot as their delivery vehicles. (author)

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ABSTRACT

SOVIET STRATEGIC AIRLIFT AND POWER PROJECTION, by Major Clark S. Young, Jr., USAF, 86 pages

Within the past 15 years, the Soviet Union has developed a strategic airlift force capable of projecting power worldwide. The development of this force is traced from the early years of the revolution through the first tenative strategic airlift effort to Peru in 1970, to the invasion of Afghanistan in 1979. The Soviets learned a new lesson with each operation and a pattern of increasing capability soon emerged. By using case studies, this thesis evaluates the improvements in the Soviet strategic airlift force, especially the An-12, An-22, and Il-76, and its ability to support Soviet foreign policy objectives. The improvements are very impressive, but it appears that the Soviets will concentrate their efforts in strategic control in the Middle East and Africa while retaining a capability to intervene anywhere with the VTA and Aeroflot as their delivery vehicles.

ACKNOWLEDGEMENTS

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INTRODUCTION

Great and powerful entities do not spring forth mature and fully armed as did Athena from Zeus's forehead. On the contrary, they usually begin modestly, struggle and develop, then grow to maturity. If this process occurs in an hospitable environment, the time required to achieve maturity may be compressed. An inhospitable atmosphere lengthens the process. Both variations of the growth pattern describe the evolution of the Soviet air forces and of strategic airlift within those forces.

The development of the air forces was initially handicapped by internal threats, the chaotic political situation faced by the Bolshevik regime, and the necessity for V. I. Lenin to attend to the basic task of political consolidation. Subsequently, development was accelerated by the realization that neglect of the air arm left a serious void in the nation's defense, a void that damaged the new regime's ability to project an image of a sovereign state. Within the air forces, strategic airlift capacity was subject to deficiencies in the state of the airplane builder's technology. The technology simply did not exist to build airplanes which could carry large payloads long distances. Operational considerations also dictated that combat airplanes, with their offensive and defensive capability, take priority over transport production during critical periods of Soviet history.

After World War II, or as the Soviets call it, the Great Patriotic War, the United States was viewed as the primary threat to Soviet security. This assumption necessitated continued emphasis on combat aircraft as the world entered the jet age and witnessed the attendant transition to an all jet combat fleet.

The purpose of this thesis is to examine the growth of Soviet airlift capacity within a developmental framework. We will briefly review the history of Soviet air forces to establish a frame of reference from which to view Soviet accomplishments in the sphere of strategic airlift. We will pay particular attention to those events which seem to have exercised a decisive influence on the development of the Soviet airlift force. Through case studies, we will review Soviet efforts and motives to project power via strategic airlift. Finally, we will evaluate the growing Soviet strategic airlift capability, the role it plays in power projection, and the uses to which this capability will be put in the near future.

CHAPTER 1

IN THE BEGINNING...

The Wright brothers' achievement of powered, manned flight in 1903 had very little immediate impact on the average American. Those who heard of this achievement remained a distinct minority of Americans, and those who cared probably felt that the aeroplane was little more than a fragile, vulnerable craft of little practical value. Initially, the United States government displayed little interest. In Europe, however, there developed a love affair between military men and planes which has continued to this day. There, during its infancy, the aeroplane's battlefield potential as a scout/reconnaissance vehicle and artillery spotter was recognized. The aeroplane was the coming weapon in the military arsenal and no self-respecting country on the eve of World War I was without its own domestic aviation industry--not even poor, backward Russia.

In 1910, Russia built her first aircraft and by August 1914, the Tsarist air force's 250 aeroplanes ranked third worldwide behind Germany and France.[1] However, this quantitative advantage was substantially offset by poorly-trained pilots and technicians, poor quality aircraft (many of which were imported), and severe maintenance and logistics problems.[2] When the Bolsheviks came to power in November 1917, they inherited an air force of approximately 250 aeroplanes and an extensive, though primitive, aircraft industry.

With the tenuous grasp that the Bolsheviks at first had on power, V. I. Lenin, Chairman of the New Council of People's Commissars, felt obliged to search out, disarm, and disband all unreliable air force units.

This program was initiated on 10 November 1917, but less than two months later, Lenin, having thought better of his initial instructions, reversed himself with orders "...to preserve all air units and flying schools for the working people."[3] By January 1918, open opposition to Bolshevik power had begun to surface, and the probability of civil war was approaching certainty. Lenin's pragmatic approach to matters of politics and organization dictated that he use all available resources, including air power, to preserve the revolution. His thinking was sound; nevertheless, he was unable to prevent the capture of significant numbers of aeroplanes, spare parts, and fuel during Germany's 1918 eastward march into the Ukraine.[4] The Treaty of Brest-Litovsk on 3 March 1918, ended Russian participation in World War I and permitted Lenin to focus his attention on the anti-Bolshevik forces arrayed against him.

During the Civil War, the Soviets employed aeroplanes with some success. Until 1919, however, the Soviet regime committed its limited air resources piecemeal, with predictably indecisive results. However, the new air directive of 1919 changed the situation by concentrating resources for employment on the important fronts. This focus of effort produced approximately 10,000 sorties between 1919 and 1921, as opposed to the 2000-3000 sorties prior to 1919.[5] The Red Air Force enjoyed absolute air superiority, but as had been the case in World War I, the aeroplane was not a decisive factor in the outcome of the war.

Although not decisive, one notable success was the production and employment of the four-engine, heavy bomber known as the Il'ya Muromets. These aeroplanes were effective in dispersing horse cavalry and in discharging functions of interdiction, and significantly, they were the first Soviet success with big aircraft. Unfortunately for the Red Air

Force, the Civil War soon drew to a close, and the war's end witnessed deterioration in the status of the military in general and in the Air Force and aviation industry in particular.

This situation soon changed as large amounts of capital were pumped into the industry to develop designs and to rebuild the force. Between 1922 and 1924, the Soviet government made substantial purchases of foreign aeroplanes to augment a modernization program emphasizing reconnaissance and fighter aircraft. This drain on Soviet foreign currency reserves proved costly, and financial considerations frustrated the further emergence of the Soviet aircraft industry.[6] When the aircraft industry finally did emerge, the emphasis on combat types would remain a fact of life for many years.

During the 1920s and 1930s, Germany and the USSR were thrown together as pariahs among the European nations. This enabled the two outcasts of Europe to use German expertise on Soviet soil to develop their air forces. Again, the development of combat aircraft was the primary result of this temporary marriage of convenience. Nevertheless, the development of the ANT-4 and the F.13 transports demonstrated that the concept of transport aviation was alive and receiving some attention.

The period of Lenin's New Economic Policy (1921-1925) witnessed an ideological struggle during which the Bolsheviks endeavored to rid the Red Air Force of its Tsarist image and make it acceptable to be counted in the vanguard of the revolution. This internal purification completed the program delayed by the Civil War, but at a steep price. By 1926, fully 40 percent of the Air Force officers were newly transferred from the infantry, and training and technical standards were low.[7]

The period of Stalin's First and Second Five Year Plans (1928-1938) was important to the Air Force for several reasons. One was the

reorganization of the Air Force units into "pure" air brigades. Transport units remained "independent", meaning that they were subordinated directly to the highest echelons, by-passing intermediate command levels. This is similar to some facets of current Soviet command structure. This reorganization was an administrative command and control measure and failed to streamline this potentially important air asset.[8]

Another important development occurred in 1928, when Marshal M. N. Tukhachevski encouraged creation of the Red Army's first parachute detachment. Enthusiasm for the concept of highly trained, elite airborne troops leading the Army into battle grew, and the use of parachute forces became a standard feature of Army maneuvers throughout the 1930s.[9]

During the 1930s, aircraft production increased dramatically. It jumped from 1000-1500 aircraft per year early in the first Five Year Plan (1928-1932) to approximately 4000 per year by 1937. Early in the period, aircraft types were virtual copies of Junkers bombers, Heinkel fighters, de Havilland reconnaissance machines, and Savoia flying boats. By 1937, production was comparable to that of the Western powers and included approximately 2000 single engine fighters, 1000 twin engine bombers, and 200 four engine bombers. Many of these were native designs demonstrating the great strides the aviation industry had made since 1921.[10]

The 1930s also witnessed conflicting forces acting on the Soviet aircraft development program. We have seen how drastically aircraft production had increased by 1937. We have also seen that approximately one-half of the 1937 production consisted of single-engine fighters. Initially, however, production had concentrated on bombers. This emphasis dated to the late 1920s, but bore fruit only on 31 October 1930, with the introduction of the first ANT-6, a four-engine transport with the bomber

designation TB-3. The next five years witnessed significant bomber and super-heavy aircraft development. Following the ANT-6 were the eight-engine ANT-20, Maksim Gorky, the K-7, and the ANT-26 and ANT-28. The twelve-engine ANT-28 was a most impressive machine weighing more than 140,000 pounds. Unfortunately for big airplane development, crashes involving the K-7 cooled official reception to these aircraft, and in early 1936 ANT-26 and ANT-28 development was shelved.[11] Not all had been lost, however. By 1936, fully 60 percent of all Red Air Force aircraft were bombers, attesting that the skills necessary for large aircraft design, development, and production were indeed available.[12]

The purges of 1937 badly demoralized the military and deprived the Army and the Air Force of many top leaders. Among those purged were Marshal Tukhachevski and General V. V. Khripin.[13] Tukhachevski was the preeminent airborne advocate and Khripin was an influential bomber and transport advocate. There also seems to have been a major military doctrinal shift. For example, the airborne forces which had been so carefully developed since 1930 never saw action during the Spanish Civil War (1936-1939).[14]

During the Spanish Civil War, the Soviet air forces supporting the republicans consisted of pilots flying primarily obsolescent fighter and reconnaissance aircraft and a few modern fast fighters and bombers. There were no transport units to fly support missions and to improve mobility and flexibility. An event which further retarded transport development was the German introduction of the ME-109E fighter in the summer of 1938. Until that time, the newer Soviet fighters which were replacing the obsolescent models had been performing well against the pro-Franco forces. However, the ME-109E proved so superior to anything

the Soviets put in the air that by the end of 1938, virtually no Soviet airplanes were engaged in combat. The Spanish experience left Stalin with two impressions which in turn led him to a conclusion greatly affecting large airplane development and production.

One impression was that the ME-109E had badly outclassed the Soviet fighters and that present Soviet fighters were inferior to the best that the Western nations could offer. Another impression was that the Soviet bombing operations had been ineffective: ineffective partially because of the modest size of the bomber formations and partially because of the lack of pathfinder aircraft to lead the force to the target.[15] Had Stalin committed massed bomber formations he might have been more favorably impressed. As it was, he concluded that emphasis must fall on developing fighter aircraft capable of competing successfully against the ME-109E and the British Spitfires and Hurricanes.

The outbreak of the Sino-Japanese War in 1937 truly emphasized the limitations inherent in the airlift capability of the day, both qualitatively and quantitatively. The requirement to reinforce the Sino-Soviet border dictated that masses of men, equipment, and material be moved great distances quickly and efficiently. This might have been an ideal mission for the strategic airlift fleet of 1980, but in 1937 it was well beyond Soviet capability; the logistics requirements of supporting the airlift fleet itself would have proven extremely difficult. Therefore, the railroad remained the primary mode of transportation while air transport played a minor, supporting role--primarily in moving priority passengers and cargo.[16] Asia, however, was not where the Soviet's near term interests lay.

Events in Europe served to de-emphasize large scale transport aviation even further. In August 1939, the pragmatic Stalin entered into

the Nonagression Pact with Hitler to guarantee Soviet neutrality in case of war. Failing that, the Pact might give the Soviet Union the opportunity to complete military preparations prior to direct involvement.[17] In September 1939, World War II began. Stalin and Hitler continued their correct, formal, sometimes friendly relations--such as Germany's dividing conquered Poland with the Soviets. But, on 22 June 1941, Hitler stunned the Soviets and the rest of the world by invading the Soviet Union. The Great Patriotic War had begun.

In the fight to repel the invader, airlift finally had an opportunity to make itself felt. During the war, military transport units, including assimilated civil air fleet units, performed outstanding service to the country, flying in excess of 1.5 million flights transporting troops and cargo throughout the combat zone.[18] Unfortunately for the Soviets, conventional airborne operations fared badly. The long operational lead times necessitated by chronic delays in assembling airlift and troops and the extensive planning required for successful combat operations usually alerted the Germans to large scale assaults. When these assaults were finally launched, Luftwaffe harassment was a certainty. Jumpers frequently had difficulty reaching their ground assembly points with their supplies and equipment intact. On 17 February 1942, one large-scale airborne operation involving more than 7000 men was cancelled in progress because the airborne corps commander and his staff were killed when their aircraft was shot down. The proposed use of airborne troops as part of a coordinated diversion/frontal attack was cancelled partially because of lack of sufficient airlift and partially because of previous failures. Those operations which did succeed were usually small missions behind enemy lines. Some exceptions existed, but Stalin could not afford

to withhold his airborne troops from combat indefinately; so, in the summer of 1942, he converted eight airborne corps to guards rifle divisions and committed them to ground combat.[19]

The lack of adequate airlift is understandable. The Germans enjoyed overwhelming air superiority during the summer and fall of 1941. With the loss of many Soviet aircraft--3800 of all types were lost during the first six days of combat--Stalin necessarily emphasized combat aircraft production. Under the circumstances, airlift combat losses were replaced very slowly. These factors, combined with the physical relocation of Soviet manufacturing plants and the conscription of 219,000 aircraft industry workers, including 137,000 trained machinists, took a toll on production. 1942 was the worst year for aircraft production in general. Transport production remained consistently low, and the quantities were never produced to influence events significantly. Full yearly production statistics are shown in Table 1. Between July 1941 and September 1945, 28,810 non-combat aircraft were built. The majority of the transports built were smaller aircraft suitable for utility missions. The one bright spot in this rather grim airlift picture was the transfer and shipment of seven hundred seven C-47 Gooney Bird transports to the Soviets by the United States.[20]

TABLE 1

SELECTED SOVIET PRODUCTION FIGURES

YEAR	TRANSPORTS	FIGHTERS
1942	450	9900
1943	1260	14600
1944	1500	18000

SOURCE: Alexander Boyd, The Soviet Air Force Since 1918, (New York: Stein and Day, 1977), p. 193.

Despite this domestic production and U.S. aid, transport attrition was great and the Soviets probably had fewer than 2000 transports, including utility aircraft, at war's end.[21] In comparison, the U.S. Army Air Force Air Transport Command had more than 3000 cargo aircraft.[22]

END NOTES

[1]Alexander Boyd, The Soviet Air Force Since 1918, (New York: Stein and Day, 1977), p. 2.

[2]Defense Intelligence Agency, Handbook of the Soviet Armed Forces, (Washington D.C.: Government Printing Office, 1979), p. 10-1.

[3]Boyd, p. 2.

[4]Ibid.

[5]Asher Lee, The Soviet Air Force, (New York: The John Day Company, 1962) p. 27.

[6]Boyd, p. 9.

[7]Ibid, pp. 11-14.

[8]Ibid, p. 22.

[9]Ibid, pp. 58-59.

[10]Lee, pp. 34-36.

[11]Boyd, pp. 55-58. For an excellent and informative overview of Soviet experimentation with and uses for long range aircraft see Boyd, Chapter 4.

[12]Ibid, p. 58.

[13]In June 1937, Marshal Tukhachevski and several other, high ranking military officers were executed on charges of being Fascist agents. In all, approximately one-half (35,000) of the officer corps was executed for crimes against the state. For a comprehensive history of the purges see Robert Conquest, The Great Terror, (New York: Macmillan Co., 1970).

[14]Lee, p. 97.

[15]Ibid, pp. 40-42.

[16]Boyd, p. 84.

[17]Walter Kirchner, History of Russia, (New York: Barnes and Noble, Inc., 1963), p. 329.

[18]I. Izgarshev, "In the Sky-Military Transport Aviation," AFRP 200-1, Soviet Press Selected Translations, August 1979, p. 262.

[19]Boyd, pp. 136-138.

[20]Ibid, pp. 168-193.

[21]Lee, p. 178.

[22]Marshall E. Daniel, Jr., Defense Transportation Organization: Strategic Mobility In Changing Times, (Washington, D.C.: National Defense University, 1979), p. 35.

CHAPTER 2

FROM PROPELLERS TO JETS

The Soviets were not to be denied the pleasure of crushing Germany. As we have seen, aircraft production figures climbed and the Soviet war machine hurled itself with a vengence at the Nazi homeland. Wholesale destruction was not, however, the entire plan of action. As the Soviets advanced through Eastern Europe in 1945, German research and production facilities in Czechoslovakia and Austria fell intact into Soviet hands. This technical plunder provided the Soviets with prototypes and production models of new aircraft, missiles, rocket and turbine engines, plus quantities of sophisticated optical and electronic equipment. This was the chance of a lifetime--a chance to overtake the United States and Great Britain with the aid of war spoils.[1]

Special engineer squads from Soviet aircraft plants followed the combat forces' advance and supervised the dismantling of these facilities. The plants were stripped of all of their machine tools and presses--including two of the world's largest hydraulic die forging presses--drawings, models, and other equipment, all of which were sent to the Soviet Union for reassembly. The Soviets also pressed into service the engineers and technicians who had staffed these plants.

With promises of food and security, and when necessary the use of threats and coercion, it wasn't too difficult to "persuade" many of these people to work for the new rulers. The obvious alternative was unemployment and low-priority access to food in the Soviet-controlled society. These professional people were housed in special areas near Berlin and

enjoyed a standard of living significantly better than their countrymen. In October 1946, however, 3000-6000 specialists and their closest relatives were transported to the USSR for a "guaranteed" five years. At the same time, the prisoner of war and displaced person camps were screened for more "volunteers" to increase the expertise and productivity of the Soviet armaments industry.[2]

The Soviets entered the post war era by elevating the Soviet Air Force (VVS) to the status of the Navy and Ground Forces and abolishing the title "Red Air Force".[3] The newest element of the VVS was "Voenno-transportnaya aviatsiya" (VTA) which had been formed originally as the Airborne Forces Transport Command. The VTA's primary aircraft were the Li-2 (the C-47 produced in the USSR under license) and the twin engined Il-12 and Il-14. These aircraft all had limited payload capability and were supplemented by some converted Tu-4 and discarded Tu-2 bombers adapted to carry loads slung under the fuselage.[4] As had been the pattern, significant airlift aircraft development was deferred in preference to interceptor fighter and long range bomber development.[5] This was in response to the Soviet belief that the United States, with its atomic bomb and its global delivery means, the B-29 and later the truly intercontinental B-36, constituted the most immediate threat. However, an event did occur which was to shed light on the airlift problem from a very different perspective.

Under the four-power treaty governing divided Berlin, road, rail, water, and air access to each allied zone was guaranteed via East Germany. This pocket of western influence inside Soviet occupied Germany was apparently a sore subject with the Soviets. After several proposals/threats to deny western access to Berlin in March and April 1948, the Soviets took

decisive action. On the night of 24 June 1948, they transmitted the following message to Allied Command, Europe:

> THE TRANSPORTATION DIVISION OF THE SOVIET MILITARY ADMINISTRATION IS COMPELLED TO HALT ALL PASSENGER AND FREIGHT TRAFFIC TO AND FROM BERLIN TOMORROW AT 0600 HOURS BECAUSE OF TECHNICAL DIFFICULTIES....[6]

The Soviet objective was to force the allies to abandon Berlin and the tactic was starvation. The Berliners were innocent pawns whom, the Soviets knew, the allies would not subject to such a fate. Hence, the tactic would work. What the Soviets did not anticipate was the power of a concerted airlift, particularly one conducted over short distances.

At 0600, 25 June 1948, when the blockade went into effect, General Lucius D. Clay, United States Military Governor of Berlin, contacted Lieutenant General Curtis E. LeMay, commander of U. S. Air Forces Europe, and explained the situation. LeMay set the wheels in motion, and by dusk on 26 June, 80 tons of supplies had been airlifted into Berlin from the west. This was insignificant to a city of 2,000,000 people, but it immediately signalled an allied commitment to Berlin. The city had a daily requirement of 13,500 tons of food, coal, medicine, and other supplies with an absolute subsistence minimum of 1500 tons. A figure of 4500 tons per day was soon established as supportable and acceptable to all parties.[7]

The allies debated fiercely the wisdom and/or necessity of retaining Berlin, but President Harry S. Truman, against strong advice to the contrary, decided to support Berlin and ordered the airlift to continue and expand.[8] By 20 July, 54 C-54s and 105 C-47s were flying 1500 tons into Berlin daily. By September, the C-47s had been replaced, and the U.S. capability consisted of 300 C-54 Skymasters, five C-82 Flying Boxcars, and intermittant use of several C-74 Globemasters. The British

total of 140 aircraft consisted of civil and military transports including York transports and their version of the C-47, the Dakota. The French also provided some support.[9]

As the operation continued, difficulties were overcome and procedures were established within and between the weather personnel, aircrews, support personnel, radar approach control, and the U.S. Army Transportation Corps. The aircraft flow interval was three minutes, with six minutes between aircraft at the same altitude. The average off-load/turn-around time at Berlin was 49 minutes with an average on-load/turn-around time at the four West German airfields of 1 hour 25 minutes.[10] As the mediocre fall and winter European flying weather of fog and freezing temperatures approached, the daily minimum lift requirement was increased from 4500 tons per day to 5260 tons per day. The airlift succeeded to the extent that in January 1949, the average Berliner's food ration was increased from 1600 to 1880 calories per day.[11]

The Soviets, of course, were not inactive during this time. Their efforts to disrupt the operation included launching mock fighter attacks, releasing barrage balloons within the flying corridors, and using the corridors for bombing runs to force the transports back or out of the corridor airspace where they would have been legal targets for Soviet fighters. One fighter attack ended in tragedy when the Soviet pilot misjudged and collided with a British passenger transport. Thirty-five people were killed.

On 12 May 1949, the "technical difficulties" were resolved and the blockade was lifted. The airlift continued until 30 September, as a precaution and to build up emergency stocks. The single day airlift record was achieved on Easter Sunday, 16 April 1949. In 1398 flights,

known as the Easter parade, 12,940 tons were delivered. By 30 September, 276,926 flights had delivered 2.323,067 tons of supplies, primarily food and coal, at a cost of approximately $345 million and 75 U.S. and British airmen's lives.[12] Table 2 summarizes the 1949 airlift statistics.

TABLE 2

1949 BERLIN AIRLIFT STATISTICS

MONTH	TONS AIRLIFTED
January	171,000
February	152,000
March	196,000
April	234,000

SOURCE: Carroll V. Glines, Jr., The Compact History of the United States Air Force, (Boulder, CO.,: Westview Press, 1977) p. 290.

The Berlin Blockade was a resounding victory for the allies. For the first time in history, airlift had saved a city. However, it was probably a bitter pill for Soviet foreign policy planners to swallow. They had misjudged the allies badly, but the VVS and VTA had learned a great lesson, one which they would apply years later at times and places of their own choosing.

The VTA made its first big step toward modernity with the introduction of the twin turbo-prop An-8 at the 1956 Tushino Air Show. The aircraft proved too small for the VTA's general requirements, and fewer than 200 were built before it was replaced by the An-12 Cub in 1959.[13] Since then, more than 700 of the many models of the An-12 have been delivered to the VVS. It remains the workhorse of the airlift fleet.

In 1967, the turbo-prop An-22 Cock entered service as the world's largest cargo aircraft. With a payload of 80 metric tons, it provided a

capability to transport virtually all of the Soviet Army's equipment over intercontinental distances. The Il-76 Candid entered the fleet in 1976 and complemented the An-12 and An-22, while rounding out the VTA's strategic airlift fleet. The next generation of the strategic airlift fleet is being developed, but has not yet been built. When the 120 metric ton capacity An-40 enters service it will be the largest aircraft in the world, a distinction now enjoyed by the U. S. C-5A.

We have reviewed some of the painful steps leading to the development of the VTA's airlift fleet. Now we will look briefly at the VTA itself. The VTA is one of the VVS's three distinct components--the other two being Long Range Aviation and Frontal Aviation. Since 1962 the Soviets have devoted an unprecedented amount of attention to their airlift fleets. This is because Nikita S. Khrushchev had evidently committed the Soviets to a course well beyond Stalin's "Continental" strategy. Both Leonid I. Brezhnev and Alexei N. Kosygin realize that to maintain influence beyond the Eurasian continent, they have to expand and improve their strategic and conventional forces significantly.[15] Illustrating this point was the Soviet Union's inability to support adequately Patrice Lamumba in the Congo in 1960 and a reduction in options when confronted by the U. S. response during the 1962 Cuban Missile Crisis. The new emphasis on airlift capacity probably also stemmed from the realization that a modern airlift fleet can achieve foreign policy objectives as the Allies had done in Berlin and as the Soviets themselves did in Czechoslovakia in 1968. The U. S. use of airlift during the Viet Nam conflict and the 1973 Middle East arms airlift provided further evidence of the growing influence that airlift could have over events. These events, when coupled with the Soviet military tactics of shock and surprise, dictated

an increased emphasis on development of airlift assets and the development of useable employment doctrine.

The VTA's mission is straightforward. The VTA is responsible for providing a rapid means of transportation for troops and equipment and to evacuate the sick and wounded. It also plays a major role in supplying arms, equipment, and troops, if necessary, to friendly foreign governments. The VTA is also responsible for providing airlift support to all armed forces components and for coordinating all VVS military transport activities.[16] Historically, the airlift of troops and supplies, especially airborne troops, has been the prime mission for the airlift fleet. While the great promise of the airborne force of the 1930s was not realized during the Great Patriotic War, there is little reason to believe that the same scenario will be repeated. VTA has the aircraft to do the job. It is generally felt that the VTA can airlift one airborne division or the assault elements of two divisions up to 1000 miles in one lift.[17] The "Dvina" exercise of 1970 demonstrated that the VTA could airland and off-load an airborne division within 22 minutes.[18] The invasion of Afghanistan in December 1979 lends a great deal of credence to such claims.[19] It is also difficult to believe that the Soviets would waste the time and resources which they have put into developing the world's largest airborne force if its employment was not a possibility.

To support the VTA mission, the VVS has approximately 1200 fixed wing aircraft under its control. This number is down from approximately 1700 in 1965, but the addition of the An-22 and the Il-76 with the concurrent retirement of less efficient models has actually increased airlift capacity. Of these 1200 aircraft, there are approximately 560 An-12 Cub,

50 An-22 Cock, and 100 Il-76 Candid. The An-22 and Il-76 are assigned to and controlled by the VTA. Many of the An-12s are assigned to various elements of the Soviet armed forces and security forces, but can be brought under VTA operational control on short notice.[20] Assignment to Frontal Aviation is common with the An-12.

In addition to the 710 An-12, An-22, and Il-76 aircraft, Aeroflot can augment the strategic lift capability by approximately 300 percent for personnel and 25-35 percent for cargo. This low cargo augmentation figure is due primarily to a lack of rear loading capable aircraft.[21] As we shall see, the use of Aeroflot aircraft or aircraft with Aeroflot markings can serve various objectives. Aeroflot practices this augmentation role twice yearly when it transports new recruits to duty stations throughout Eastern Europe and Asia without diminishing scheduled service.

The airlift fleet has improved significantly both in quantity and quality since the end of the Great Patriotic War. The state of the art, sometimes nudged along by overly ambitious foreign policy goals, has helped develop an effective strategic airlift capability. Just how effective it is remains to be seen. In the remaining chapters we will review several instances in which Soviet strategic airlift played roles. We will then attempt to determine whether these roles were significant and what value, if any, such a capability portends.

END NOTES

[1]Alexander Boyd, The Soviet Air Force Since 1918, (New York: Stein and Day, 1977), p. 205.

[2]Ibid, p. 206.

[3]Ibid, p. 216; and Defense Intelligence Agency, Handbook of the Soviet Armed Forces, (Washington, D.C.: U.S. Government Printing Office, 1978), p. 10-2.

[4]Robin Higham and Jacob W. Kipp(eds.), Soviet Aviation and Airpower: A Historical View, (Boulder, Co.: Westview Press, 1977), p. 290.

[5]Boyd, p. 226.

[6]Carroll V. Glines, Jr., The Compact History of the United States Air Force, (New York: Hawthorn Books, Inc., 1963), p. 291.

[7]Glines, p. 292; and Alfred Goldberg(ed.), A History of the United States Air Force: 1907-1957, (Princeton, N.J.: D. Van Nostrand Company, Inc., 1957; reprint ed., New York: Arno Press Inc., 1972), p. 235.

[8]Joseph A. Lasteic, "Lawmakers Mourn Era of Credible Leaders," Kansas City (Mo) Times, 21 January 1980, p. 11A.

[9]Glines, p. 293; and Goldberg, p. 235.

[10]Goldberg, p. 239.

[11]Ibid, p. 240

[12]Glines, p. 294.

[13]Boyd, p. 226.

[14]DIA Handbook, p. 10-2.

[15]Higham, p. 302.

[16]Ibid.

[17]Phillip A. Petersen, Soviet Air Power And The Pursuit Of New Military Options, (Washington, D.C.: Government Printing Office, 1978), p. 30.

[18]Boyd, p. 227.

[19]The Soviets are not beyond making totally unsupported statements about their airlift capabilities. For one such case see Peter Borgart, "The Soviet Transport Air Force," International Defense Review 6/1979, p. 949.

[20]Petersen, p. 30; Robert P. Berman, Soviet Airpower in Transition, (Washington, D.C.: Brookings Institution, 1978), p. 14; and The International Institute for Strategic Studies, The Military Balance: 1979-1980, (London, The International Institute for Strategic Studies, 1979), p. 11.

[21]Petersen, p. 30; and John M. Collins, American and Soviet Military Trends Since The Cuban Missile Crisis, (Washington, D.C.: The Center for Strategic and International Studies, Georgetown University, 1978), p. 292.

CHAPTER 3

THE FOURTH ARAB-ISRAELI WAR, OCTOBER 1973

Israel was carved from the Middle East with the same disregard for the area's inhabitants which had characterized the European colonial powers' division of Africa. The area's inhabitants were informed that the United Nations' protectorate of Palestine was to be divided with a large portion set aside as the home of the stateless Jews. This uncompensated appropriation of Arab lands to create the state of Israel was then, and has continued to be, a burning issue in world affairs. Since Israeli statehood in 1948, four distinct wars have been fought between Arabs and Israelis over Israel's right to exist. The latest war, in October 1973, and the Soviet and United States resupply airlift which it generated, afford a case study backdrop for a review of Soviet strategic airlift capabilities. We will compare the Soviet effort to resupply its Arab clients with the U.S. effort on Israel's behalf to put in perspective the improved Soviet capability. The discussion will emphasize what elements were necessary for the Soviets to project power globally, versus regionally, via strategic airlift.

One lesson of the 1967 Six Day War was that the Soviet Union's Arab clients were unable to beat the Israelis without Soviet help.[1] Egyptian President Nasser's "war of attrition" during 1969-1970, reinforced the notion that significant amounts of Soviet aid would be necessary to defend Egypt successfully against fierce Israeli counterattacks. Indeed, by mid-1970, the Egyptian air defense system had been upgraded

by the addition of Soviet surface-to-air missiles (SAMs), their operators, and sophisticated air defense fighters.[2] Such an assortment of aid to the charismatic and fiercely independent Nasser was not the way the Soviets preferred to assist their clients, but an arms commitment had been made and to withhold it would have proven more damaging to Soviet interests than the uncertainty of the prevailing situation.

After Nasser's death on 28 September 1970, the new president, Anwar el-Sadat, became highly critical of the Soviet Union. In the Spring of 1971, Sadat uncovered an attempted coup d'etat and evidence of Soviet complicity. He helped Sudan's President Numayri crush a communist coup attempt and in early 1972 criticized the Soviets for not supplying Egypt with offensive weapons. Nor could Sadat gain a commitment from the Soviets for them to do the fighting. For their part, the Soviets realized that to delay or terminate arms deliveries, such as had been the case after the 1967 war, would have proven counterproductive. In July 1972, Sadat grew more strident, finally asking the Soviets to withdraw the bulk of their 15,000-20,000 technicians and advisors.[3] The Soviets and Egyptians seem to have been passengers on a train without an engineer. The train was not destined to stay on the track much longer.

In early 1973, the Soviets were certain that the Arabs would attack Israel and cautioned that diplomacy was the best way to achieve Arab goals. The Israelis also sensed the impending clash and ordered limited mobilization. Soviet skepticism of Egypt's ability to defend against Israeli counterattacks was evidenced by increased deliveries of SAMs, anti-tank guided missiles, and tactical surface-to-surface SCUD missiles.[4] On 1 October, President Sadat informed the Soviets "that the coming days will be a real and practical test for the Soviet-Egyptian treaty."[5]

At 1205 Greenwich Mean Time(GMT), 6 October 1973, the Egyptians initiated a massive, coordinated artillery and fighter attack against Israeli forces. At 1300 GMT, the Syrians attacked Israel from the Northeast.[6] Initial Arab successes were very impressive. Losses on both sides, however, were staggering. During the first two days of fighting, Israel lost more than 30 fighters to Egyptian and Syrian SAMs.[7] By the morning of 9 October, the losses had climbed to 60. From the U.S. the Israelis requested electronic jamming equipment to counter the extremely successful SA-6 and called for replacement of all tank and aircraft losses. President Richard M. Nixon approved replacement of all losses and Secretary of State Henry Kissinger expected Israel to wrap up the war by 11 October.[8] By the 12th, Israel's aircraft losses had risen to 78 fighters. By the same day, Egypt's losses were 82 aircraft and Syria's, 80. Ground losses were no less staggering. Within the first week of combat, the Syrians had lost approximately 650 tanks in the battle for the Golan Heights, while the Egyptians had lost about 250 in the Sinai Desert. Meanwhile, Israel had lost 550 of its 1950 tanks. During the same period, the Arabs suffered 10,000 killed and the Israelis 1000.[9]

As these successes and losses were reported, the Soviets took note. They were heartened by the Egyptian success in crossing the Suez Canal, in breaching the Bar-Lev Line, and in advancing into the Sinai, but were concerned with Syrian reversals on the Golan Heights.[10] To demonstrate Soviet support and concern, Soviet Ambassador V. Vinogradov, on the evening of 8 October, notified President Sadat that an arms airlift could be expected to start shortly.[11] The Soviets had reportedly placed 300 transports on alert to support this operation which would begin on 10 October.[12]

Indeed, by the end of the 10th, 21 An-12 Cubs had reached Syria.[13] The Soviet Union and the United States were embarking upon the most intensive aerial resupply in history.

By disposition and experience, the Soviets have been hesitant to announce their airlift intentions or to publish statistics upon completion of an operation.[14] The 1973 airlift was no exception. Table 3 summarizes Military Airlift Command(MAC) estimates of the Soviet effort and the actual statistics of the MAC effort.

TABLE 3

SOVIET-U.S. AIRLIFT STATISTICS

	ACFT	MISSIONS	AVG DIS (ONE WAY)	DURATION	TONS LIFTED
USSR	An-12	850	1700 NM	40 DAYS	10,000
	An-22	85			5,000
		935			15,000
USA	C-141	422	6450 NM	32 DAYS	11,754
	C-5A	145			10,565
		567			22,319

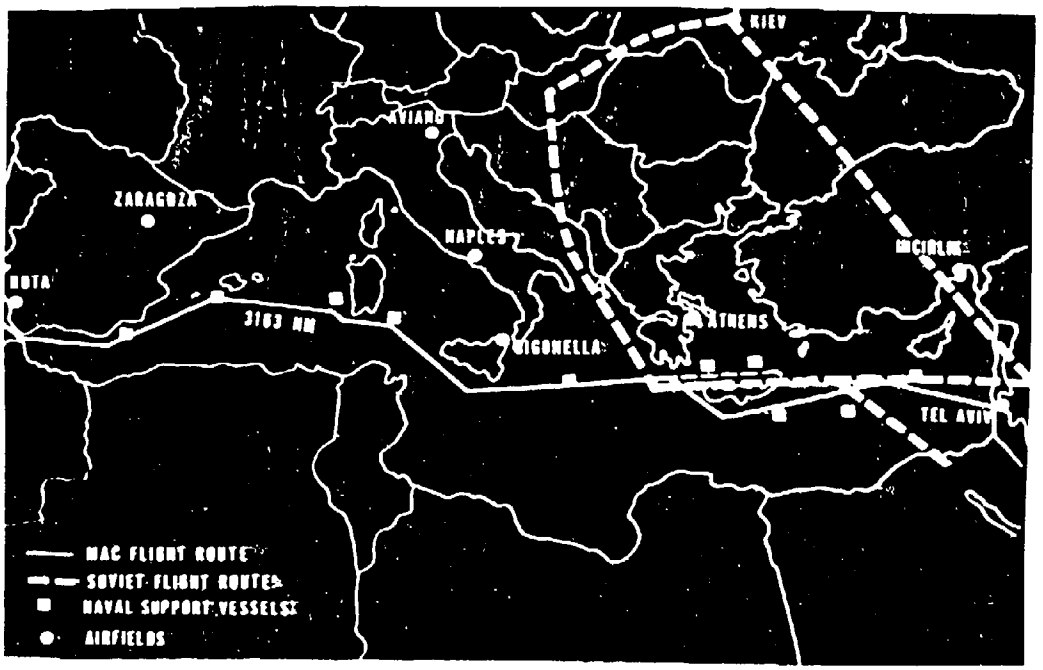
SOURCE: Kenneth L. Patchin, Flight to Israel(U), (Scott AFB,Il.: Military Airlift Command, 1974, revised 1976), pp. 250-254.

A significant threat, translated into political and economic reality, set a dangerous precedent and greatly complicated Operation Nickel Grass, the U.S. resupply airlift to Israel. The threat involved an Arab oil embargo upon any nation which actively or passively aided Israel. This threat became a reality for the United States and became even more serious when American allies, save Portugal, refused to permit territorial overflight or support stops for MAC flights. This lengthened the U.S.

supply line considerably and required that more aircraft and crews be committed to the operation. Great Britian even suspended deliveries of arms previously ordered by Israel.[15] By contrast, the Soviet routes were relatively short, the shortest being only 1150 nautical miles(NM). This short route also utilized the airspace of NATO member, Turkey. The longer route originated in either Kiev, USSR or Budapest, Hungary. Partial route structures are portrayed on Map 1.

MAP 1

SOVIET AND UNITED STATES RESUPPLY ROUTES



SOURCE: Military Airlift Command, Directorate of Information, The Military Airlift Command's Role in the Israeli Airlift of 1973, (Scott AFB, Il.: Military Airlift Command, 1974), p. 3 and slide 5.

The Eastern Mediterranean, especially in the vicinity of Cyprus, became extremely congested with aircraft from the opposing support forces under control of Nicosia Air Traffic Control. Nicosia controlled as many

as 20 U.S. and Soviet aircraft per hour. There also seemed to be insufficient numbers of English speaking Soviet pilots available, and additional air traffic control equipment and Russian speaking controllers had to be flown to Damascus, Syria, by the Soviets, to help handle the traffic.[16]

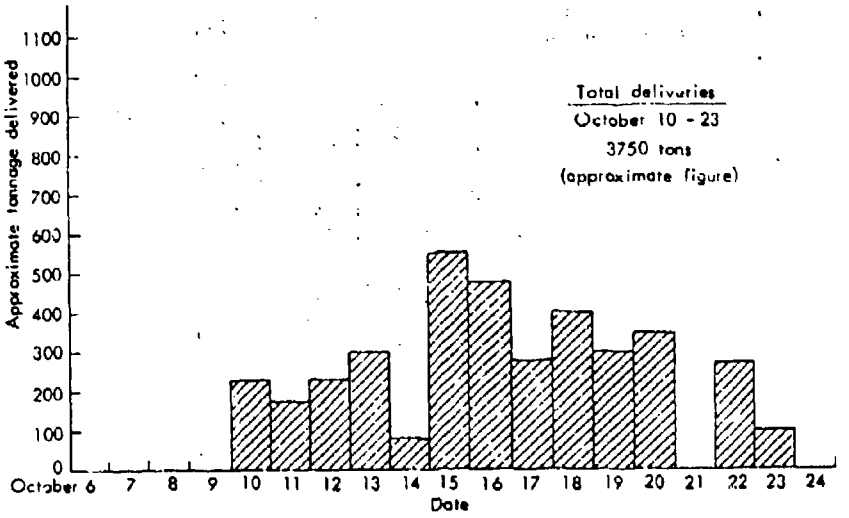
Meanwhile, initial Arab military successes turned to spectacular reverses. The Israeli strategy was to halt the Egyptians in the Sinai while destroying the Syrians on the Golan Heights. By 12 October, the Israelis were making this strategy a fact. After driving the Syrians from the Heights, the Israelis began to bomb Damascus and by 14 October, the Israelis had gained the upper hand on the Syrian front.[17] That same day, the Egyptians made a serious mistake and advanced beyond range of their SAM protection. This error permitted Israeli aircraft and tanks to operate much more freely. That day Egypt lost 200 tanks.[18]

On 14 and 15 October, Algerian President Boumediene visited Moscow and pleaded for increased Soviet aid to the Arabs. Brezhnev countered that the Soviets had already sent 4000 tons of arms on 280 flights.[19] The Egyptians had already rejected Soviet advice concerning a cease-fire settlement after the Arabs' early gains and the Soviets suddenly became cautious about excessive arms supply at their own expense. The Soviet position softened when Boumediene offered to pay cash for $100 million worth of arms to both Egypt and Syria. The impact on weapons deliveries was immediate. Tables 4 and 5 portray the dramatic increase in deliveries to Syria on the 15th and 16th and to Egypt on the 17th.[20]

As the fighting entered its third week, some sources reported that the Soviets were stripping Hungarian units to send arms south and that the Eastern European stockpiles were being drawn down for shipment to the Arabs.[21] Also, as the fighting continued, the Arabs were being humili-

TABLE 4

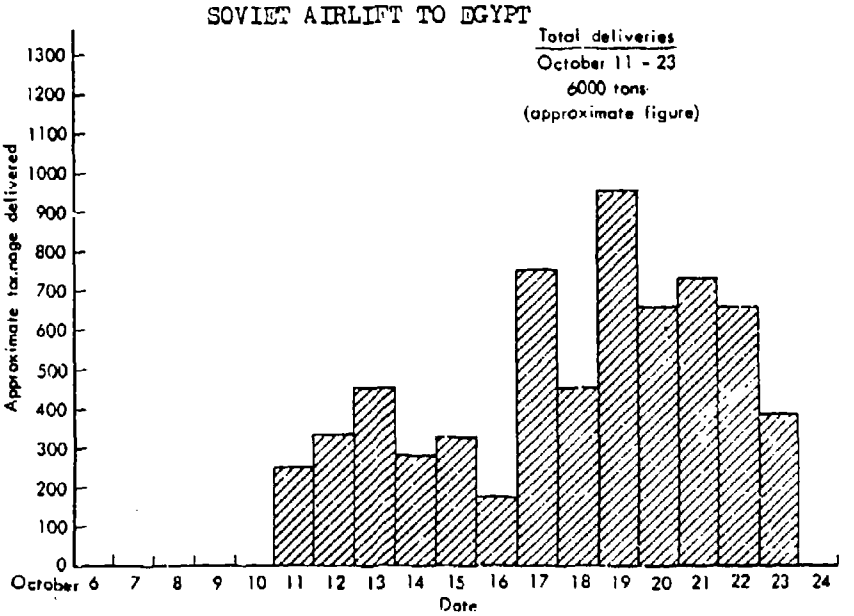
SOVIET AIRLIFT TO SYRIA



SOURCE: William B. Quandt, Soviet Policy in the October 1973 War, (Santa Monica, Ca.: Rand Corporation, 1976), p. 25.

TABLE 5

SOVIET AIRLIFT TO EGYPT



SOURCE: William B. Quandt, Soviet Policy in the October 1973 War, (Santa Monica, Ca.: Rand Corporation, 1976), p. 26.

ated. The Israelis were moving on Damascus and the Syrians were hard pressed to check the advance. In the Sinai, the Israelis had crossed the Suez Canal and threatened to encircle the Egyptian Third Army.[22] From the outset, the U.S. had been seeking ways to stop the fighting, preferably through the auspices of the United Nations. Now the Soviets actively joined this effort. The cease-fire, U.N. Resolution 338, was adopted early in the morning of 22 October for implementation at 1900 GMT. The Egyptians and Israelis did not adhere to the timetable and their non-adherence created a very serious problem.

The Soviets could imagine the consequences to their position in the Arab world if the Israelis continued to pound the Syrians and the Egyptians. Specifically, the plight of the encircled Egyptian Third Army set the Soviets on their next course.[23] At 0230 GMT, 25 October, President Nixon received a message from Chairman Brezhnev in which he urged that the U.S. and the Soviets compel observance of the cease-fire. The letter ended with:

> I will say it straight, that if you find it impossible to act with us in this matter, we should be faced with the necessity urgently to consider the question of taking appropriate steps unilaterally. Israel cannot be permitted to get away with the violation.[24]

President Nixon's response to this thinly veiled threat was to increase the normal defense posture for all U.S. forces to Defense Condition 3.[25] The one thing that neither nation wanted--direct, superpower confrontation--became a distinct possibility. The Soviet airlift decreased perceptibly on the 23rd, possibly because aircraft were being positioned to support the deployment of Brezhnev's "unilateral" solution--the injection of Soviet and Warsaw Pact troops from Poland and East Germany.[26]

By 1700 GMT, the crisis had subsided.[27] The U.S. had "prevailed" upon Israel to accept the cease-fire. The job of putting the Middle

East back on course could be returned to the diplomats. Operation Nickel Grass continued until 15 November 1973, when the U.S. reduced its lift to routine missions and shifted reliance to sealift in fulfilling President Nixon's pledge to replace all destroyed weapons. The Soviet operation resumed after the cease-fire became effective, but not at its former intensity. It decreased significantly during the first two weeks of November and MAC sources also cite 15 November as the termination date.

Exactly what did the Soviet airlift demonstrate, and what, if anything, can we deduce from Soviet actions? First we must ask why the Soviets resupplied the Arabs and more specifically, why by air?

A real fear following the 1967 War was that the Arabs would start a conflict that only the U.S. and Soviets could finish. This line of Soviet reasoning was obviously correct. Arab reversals would require direct Soviet assistance just as Arab victory could result in U.S. assistance to Israel or Israeli use of nuclear weapons.[28] The Kremlin correctly perceived that its influence with the Arabs would have been nil had the Soviet Union not provided arms resupply during the war instead of just after it. The official position was that the Kremlin would pursue every effort to obtain a just peace that would guarantee the security of all states in the Middle East. This reinforces the view that the official Soviet sympathies were totally with the Arabs, and while the use of force was not necessarily endorsed, excessive criticism of Arab methods was unacceptable. The Soviets were committed to the Arab cause, but they were unable to control either the Arabs or the course of events.[29] The fact that the Soviets did not protest the impending hostilities more forcefully also lends credence to the assumption that they saw President Nixon as handcuffed by events. The Watergate investigation, the fallout

from the "Saturday Night Massacre", and the calls for impeachment apparently led the Soviets to believe that the U.S. was vulnerable to power plays in the international arena.[30] This was not a correct conclusion.

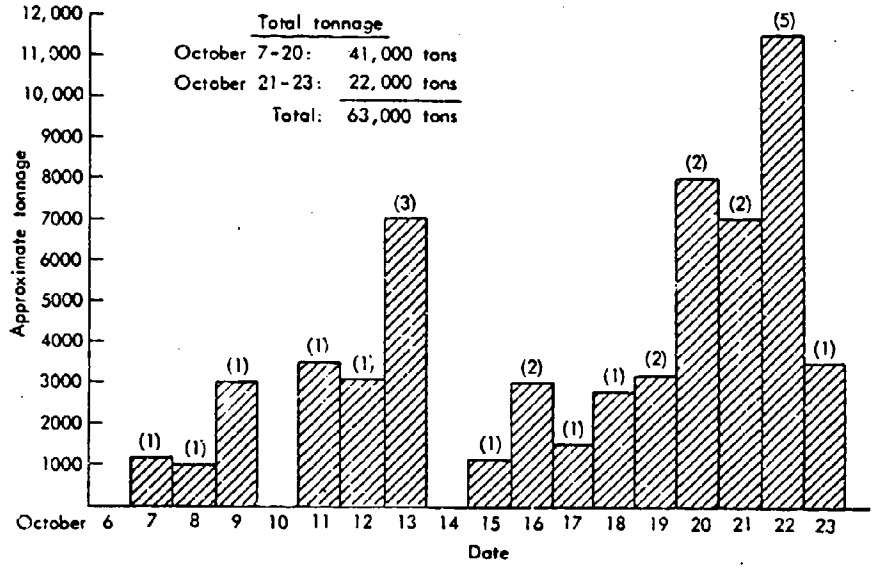
But why use airlift instead of the more efficient and productive sealift? The answer is not clear, but considerations hinge on the necessity to diversify delivery modes to take advantage of sea-lift's bulk carrying capability and airlift's flexibility and rapid response. The Soviets also wanted to demonstrate the depty of their support while exercising their strategic airlift system. The tremendous Arab heavy equipment losses were not going to be replaced via airlift. Ships and sealift remained preferred methods of transporting significant numbers of armored vehicles and vast quantities of munitions to the war zone. Ammunition was being used at an astounding rate in the early fighting. It was estimated that the Egyptian Army used 300 tons of artillery ammunition during the first hour of combat on 6 October.[31] This supply was not unlimited, but it was considerable as a result of stockpiling. The airlift would help insure the availability of specific, high-use munitions.

The Soviet Union's primary mode of overseas arms delivery has traditionally been ship. The Middle East was no exception, but sealift's most limiting factor, slow speed, sheds some light on the use of airlift. Five ships transited the Bosphorous between 7 and 12 October, and would have reached their destinations between 10 and 15 October. (See Tables 6 and 7.)

Although loaded with high-consumption munitions and equipment, the time required to deliver the cargo was critical. As it developed, arrival dates between 10 and 15 October were almost unacceptable because the Syrians were already in retreat and the Egyptians had made the decision to fight beyond the range of their SAM defenses.

TABLE 6

SOVIET SEALIFT TO THE MIDDLE EAST (number of ships in parenthesis)



SOURCE: William B. Quandt, Soviet Policy in the October 1973 War, (Santa Monica, Ca.: Rand Corporation, 1976), p. 23.

TABLE 7

FROM THE BLACK SEA TO THE MIDDLE EAST BY SHIP

FROM	TO	DISTANCE (NM)	DAYS TO TRANSIT (SPEED 13 KTS)
Odessa, USSR	Istanbul, Turkey	343	1
Istanbul	Alexandria, Egypt	750	2.5
Istanbul	Latakia, Syria	900	3

The airlift, however, could exploit the sealift's deficiencies in responsiveness and flexibility. Specific requests were filled within 24 hours in at least two cases. On 10 October, Israeli fighter pilots noted a sharp decrease in the number of Syrian SAM launches. On 11 October, following the arrival of the first An-12s to Syria, the launches resumed with their former intensity.[32] The other case is the previously related incident of President Boumediene's arms purchases and their immediate delivery. To further illustrate this point, it is estimated that when the first U.S. aircraft, a C-5A, landed at Tel Aviv on 14 October, Israel had only one week's supply of ammunition remaining.[33] Had sealift been the only available means of resupply, the operation would have had to begin several days before the war began.

How did the operation affect the strategic airlift fleet? Without doubt, it was the most ambitious such Soviet effort to date. The political realities of the situation far outweighed the need for caution generated by the debacle of the Peruvian airlift of 1970, the Soviet's first, large-scale overseas airlift venture. The Middle East effort was significantly more difficult than a similarly sized Warsaw Pact exercise because of the need to coordinate international routes and clearances, to provide sufficient crews with international experience and still maintain their normal Aeroflot routes, to provide sufficient English speaking cockpit crews, and to support the operation with adequate logistics and command and control capability. The fact that 300 transports were initially alerted attests to a tremendous commitment. As it was, a maximum of approximately 70 Soviet aircraft per day operated between the USSR and the Middle East.[34] While impressive, this mission generation was necessitated partially by the smaller payloads of the Soviet An-12 and

An-22 aircraft. By comparison, MAC logged a maximum of 27 daily arrivals.[35]

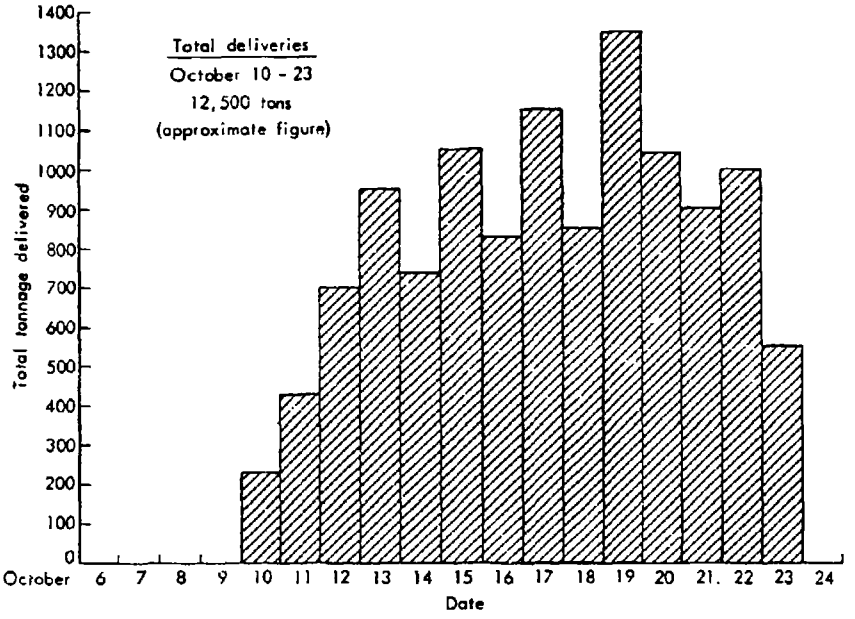
The commitment of 300 aircraft, approximately 45 percent of the strategic fleet, may also say something about aircraft utilization rates and crew employment procedures. The 3400 mile round trip should have taken about ten flying hours and six ground servicing and loading hours. The servicing hours could have been cut to three or fewer without too much trouble. Had the utilization rate been five hours per day per aircraft it would have taken fewer than 75 aircraft to complete the operation, according to the MAC figures. On the other hand, William B. Quandt's figures (see Table 8) come fairly close to 70 Soviet aircraft transiting the area on 19 October. Quandt's figures would have required about 200 aircraft to deliver 12,500 tons in 14 days. However, if the full 300 aircraft were actually used, the reason must lie in very low utilization rates and/or a Soviet desire to expose the maximum number of aircraft and crews to this actual contingency operation. Another interesting, though unsupported, possibility is that the VTA command and control system was incapable of adequately defining the number of aircraft and crews required, so they made their estimate, 300, reality. The slackened airlift effort, which coincides with the Brezhnev letter to Nixon, probably reflects the necessity of keeping the resupply aircraft clear of the area in case combat troops were introduced, rather than an admission that the Soviets were incapable of handling both operations at once.

In 1973, however, the Soviets would have found it difficult to achieve the results enjoyed by MAC. Over a route four times longer than the Soviets', MAC carried more cargo, on the average, and carried it faster. The Soviet system would have been strained to attain MAC's capability,

and had the Soviets reached it, they probably could not have sustained it. On the American side, the MAC commander, General P. K. Carlton, stated that he could have increased the airlift from the normal 23 daily deliveries to a maximum of 55 daily deliveries.[35]

TABLE 8

SOVIET AIRLIFT TO THE MIDDLE EAST (total of deliveries to Egypt, Syria, Iraq and flights to the Middle East whose final destination is unknown)



SOURCE: William B. Quandt, Soviet Policy in the October 1973 War, (Santa Monica, Ca.: Rand Corporation, 1976) p. 25.

Thus, we have a fairly comprehensive view of the VTA's impact on the Fourth Arab-Israeli War. We have seen that given the opportunity, sealift delivered significantly more tonnage than airlift, but that airlift response and delivery times were much faster and the effects were felt immediately. The airlift certainly fulfilled the foreign policy objectives of supporting Soviet clients. We also saw that in head-to-head competition, MAC's long distance capability remained unexcelled and

continued to serve as the long range military airlift standard. However, the Soviets could be justifiably proud of the strides they had made in the VTA within the previous ten years. In 1963, they probably could not have completed an operation of this magnitude.

END NOTES

[1]William B. Quandt, Soviet Policy in the October 1973 War, (Santa Monica, Ca.: Rand Corporation, 1976), p. 3.

[2]Mohamed Heikal, The Road To Ramadan, (New York: The New York Times Book Co., 1975), pp. 83-90.

[3]Quandt, pp. 4-6.

[4]Ibid, pp. 7-9.

[5]Heikal, pp. 24-25. In Kissinger, the Kalbs claim that the Soviets were informed on 22 September 1973.

[6]Ibid, p. 207.

[7]"Soviet aid sparks Arab gains," Aviation Week & Space Technology, 15 October 1973, p. 12.

[8]Marvin and Bernard Kalb, Kissinger (Boston: Little, Brown and Co., Inc., 1974), p. 467.

[9]"Soviet aid sparks Arab gains," pp. 12-13.

[10]Quandt, pp. 15-16.

[11]Heikal, p. 214.

[12]"Soviet aid sparks Arab gains," p. 12. There is controversy concerning the actual start date but both Israeli Prime Minister Golda Meir and Secretary of State Henry Kissinger acknowledged 10 October.

[13]Quandt, p. 19.

[14]P. M. Dadant, A. A. Barbou, and J. W. Higgins, Capabilities for Military Airlift to Third Areas: U.S. Air Fleet Improvements and U.S.-USSR Comparisons for 1978 and the Mid-1980s(u) (Santa Monica, Ca.: Rand Corporation, 1979), p. 81.

[15]"U.S., Soviets Boost Mideast Airlift," Aviation Week & Space Technology, 22 October 1973, p. 18. This article also asserts that

Ramstein Air Base, Germany, was used and that the route to Israel crossed Austria and Yugoslavia. I can find no evidence, in any source, to substantiate this claim.

[16]"U.S., Soviets Boost Mideast Airlift," p. 18.

[17]"Soviet aid sparks Arab gains," p. 14.

[18]Quandt, pp. 24-26.

[19]Ibid, p. 19.

[20]Ibid, p. 24. By the 15th, Prime Minister Meir claimed that the Soviets had flown 125 An-12s to Syria, 17 An-12s to Iraq, 42 An-12s to Egypt, and 16 An-22 to Egypt for a total of 200 missions.

[21]"History's Biggest Airlift: Israel-Arab War," Time, 29 October 1973, p. 52; and "Restocking the Arsenals," Newsweek, 29 October 1973, p. 15.

[22]"Mideast Cease-fire Spurs New Tensions," Aviation Week & Space Technology, 29 October 1973, p. 15.

[23]Quandt, pp. 30-32.

[24]Ibid, pp. 32-33.

[25]Ibid, p. 33.

[26]"Mideast Cease-fire Spurs New Tensions," p. 12.

[27]Quandt, p. 33.

[28]Ibid, p. 4.

[29]"Arab Envoys Reported 'Nonplussed' by Gromyko Remarks," The Times, 12 October 1973, p. 10a.

[30]"Mideast Cease-fire Spurs New Tensions," p. 14.

[31]Quandt, p. 24.

[32]Ibid, p. 23.

[33]Kenneth L. Patchin, Flight to Israel(U) (Scott AFB, Il.: Military Airlift Command, 1974, revised 1976), p. 12.

[34]Ibid, p. 5.

[35]Ibid, pp. 314-366.

[36]Dadant, pp. 19-20.

CHAPTER 4

THE OGADEN WAR

The Soviets could be justifiably proud of their efforts in the Middle East in 1973. Although victory eluded the Arabs, their failure to attain their objectives cannot be blamed on inadequate resupply during the fighting. Two years later in Angola, Soviet support of the Movement for the Liberation of Angola (MPLA) was directly responsible for Dr. Agostinho Neto's party gaining and maintaining control after independence from Portugal. However, the Angolan supply effort did not have the intensity and sense of urgency of the 1973 effort nor that of our next case, the Ogaden War between Ethiopia and Somalia. The Ethiopian arms airlift was initiated on 26 November 1977.[1] The entire sea and airlift effort succeeded in providing more than one billion dollars aid in the form of 50,000 tons of military equipment and supplies to the sagging Mengistu regime during a period of Eritrean separatist turmoil in the north and Somali guerilla attacks in the Ogaden Desert.[2]

The events leading to the increased pace of arms supply are complex and require explanation. Very simply stated, they focus on the contending interests of Ethiopia, Somalia, the Soviet Union, and the United States. In September 1974, Ethiopian Emperor Haile Selassie I was deposed in a "creeping coup" which had begun the previous January. The radical Provisional Military Administrative Council, known as the Dergue, led by Major Mengistu Haile Mariam, believed firmly that Marxism-Leninism was the only way to transform the feudal Ethiopian state into a truly revolutionary society. Relations between the Dergue and the United States

government cooled noticeably as Ethiopian denunciations of United States policy toward Ethiopia increased. By December 1976, relations had deteriorated to the point at which the Soviets were recognized as Ethiopia's new arms supplier. Commitments subsequently estimated at between 500 to 800 million dollars were made even before the airlift began.[3] In April 1977, Ethiopia severed its 24 year military ties with the United States when the Military Assistance Advisory Group was expelled and the Kagnew Station communications center at Asmara was closed on very short notice.[4] The Soviets moved immediately to fill the vacuum and provide the Dargue with the more sophisticated offensive arms which the United States had refused to supply.

Somalia, on the other hand, was a nation in which the Soviets had had influence since 1969 when President Mohammed Siad Barre came to power. That influence increased in 1974 when Somalia became the first black African nation to sign a treaty of friendship and cooperation with the Soviets. Soviet greed led the Kremlin to a severe miscalculation. As Ethiopian-U.S. relations were deteriorating in late 1976 and early 1977, Moscow made a move to increase significantly their influence in the entire horn of Africa.

In March 1977, Cuban Premier Fidel Castro travelled to Aden, Peoples Democratic Republic of Yemen (PDRY), to confer secretly with Ethiopian and Somali leaders in an effort to ease tensions in the area. His was a Soviet sponsored plan to create a federation of Ethiopia, Somalia, and other like-minded weak socialist states in the area. This federation would then dominate, with the aid of Soviet advisors, the Strait of Bab el Mandeb and counterbalance the anti-Soviet, Egyptian-Sudanese alliance.[5] But the Somalis would have none of it. Their centuries-old antagonism toward the Ethiopians and their obsessive desire

to unite all Somali tribes under one flag would not be compromised. In April, however, the Soviet arms and spare parts shipments to Somalia were slowed and reduced, thereby putting Siad Barre on notice to moderate his position or face a freeze in Soviet assistance.[6]

But the Mogadishu government was not to be swayed or intimidated. In mid-July, as the Dergue was attempting to weather continuing internal opposition to its brutal, dictatorial rule, forces of the Western Somali Liberation Front attacked and overran Ethiopian military outposts in the Ogaden Desert, the traditional home of many Somali tribesmen. Somali success was immediate and soon much of the sparsely settled, semi-arid region, comprising approximately 20 percent of Ethiopia's territory, was under "guerilla" control. Then, as now, there seemed little doubt that the guerillas were heavily supported by the Somali government and Army.[7]

This situation presented the Soviets with a very difficult problem. How could they defuse this war and still maintain influence in both countries? As events would dictate, they could not. President Siad Barre was incensed at the Soviet airlift of weapons and other material, including MiG-21s, tanks, and missiles, to Ethiopia since May 1977.[8] Other irritations included training provided the Ethiopians by the Soviets, the cutback and slowdown of Soviet arms shipments to the Somalis, and the airlifting of Cuban troops to Ethiopia.[9]

On 13 November 1977, President Siad Barre stunned the world by ordering all Soviet advisors, about 1500 military personnel, teachers, doctors, technicians, and dependents, to leave within seven days. In addition, Barre ended Soviet use of naval and air facilities, renounced the treaty of friendship and cooperation, ordered the reduction of the Soviet diplomatic corps in Mogadishu and a corresponding reduction of

the Somali diplomatic corps in Moscow, broke diplomatic relations with Cuba, and gave the Cubans 48 hours to leave the country.[10] The loss to the Soviets included considerable prestige and the critical naval repair and missile storage facilities at Berbera.[11] On the same day, the execution in Ethiopia of the second most important man in the Dergue, Lieutenant Colonel Atnafu Abate, for "anti-revolutionary" crimes and "arch-reactionary stands" attested to the continued instability of the Mengistu regime.[12] Soviet influence in Somalia was nil. To maintain any position in the Horn, the Soviets had to support openly the Dargue and stake their strategic position in the Horn on Ethiopia's beating the Somalis in the Ogaden. They played their role with speed, power, and self-assurance.

On the basis of conflicting information the story seems to unfold as follows. In the six weeks following 26 November, there were between 50 (U.S. State Department estimate) and 225 (other source estimates) flights by Soviet strategic airlift aircraft from the USSR to Addis Ababa, Ethiopia, and Aden, PDRY. The use of Aeroflot aircraft, possibly VTA aircraft with Aeroflot markings, was evident throughout the operation.[13] Primary airlift aircraft were An-12, An-22, and Il-76. Depending upon the source, the airlift had one of two purposes: either to build up the Ethiopian forces prior to a counter-offensive in the Ogaden and thus stabilize the rebel situation in Eritrea with attendant visible support to the Mengistu regime, or to test and evaluate the Soviet's ability to move troops and equipment to Northeast Africa and the Middle East.[14] We will discuss both interpretations in due course.

First, let us turn our attention to the fine points, problems, and implications of the airlift as they affect the Soviet ability to project power. As many as six different routes may have been used during

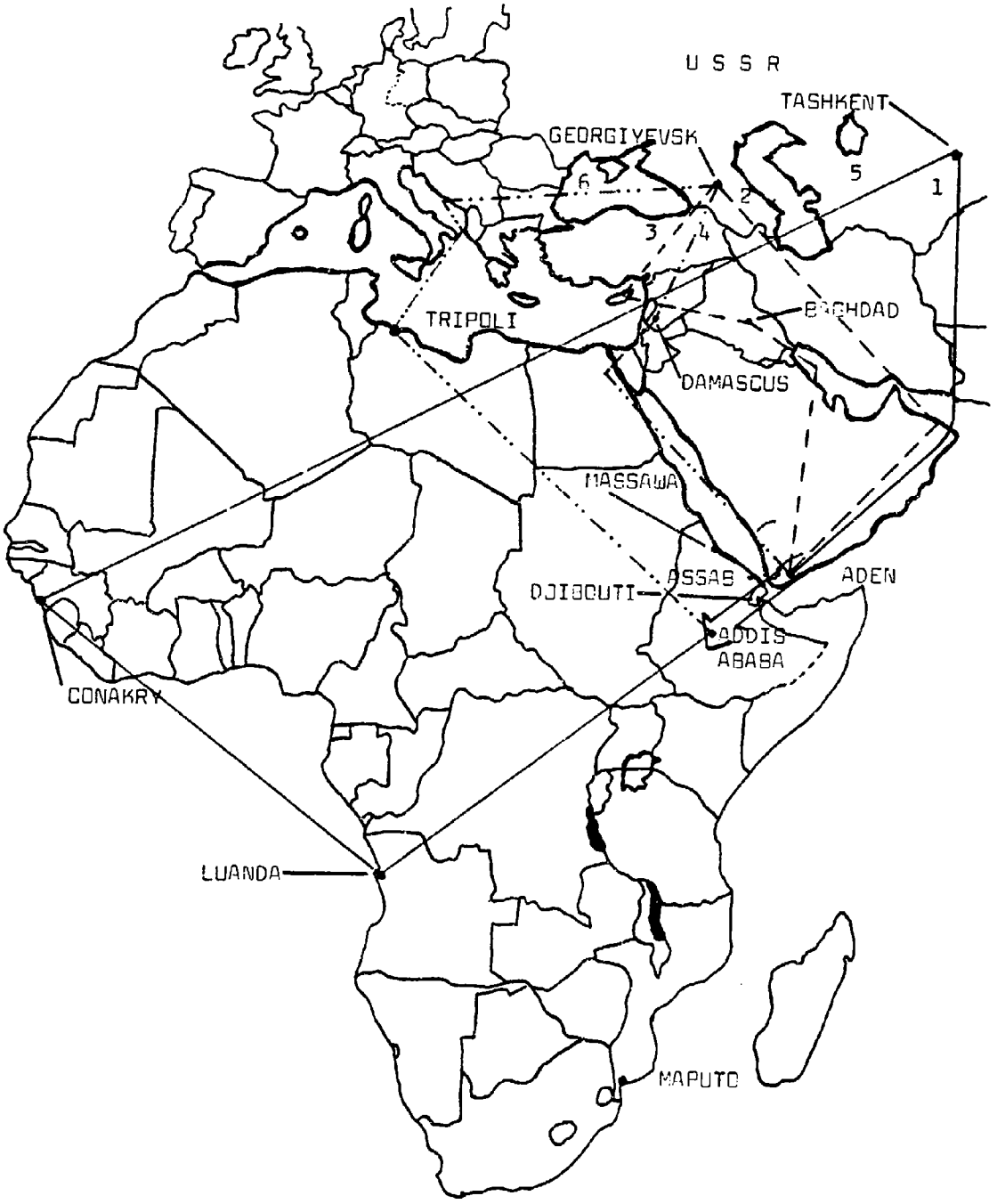
the accelerated airlift. Refer to Map 2 and Table 9 for details. Diplomatic sources reported that arms were pouring in at such a rate that Bole International Airport at Addis Ababa was swamped with Soviet transports, forcing scheduled commerical service to bypass the city.[15] From the author's personal experiences piloting C-141s into Addis Ababa, this statement is somewhat misleading because aircraft parking space is normally very limited. Nonetheless, the airport was extremely busy. At one point at least 16 crated MiGs were awaiting reassembly at the airport. Ammunition, tanks, and assorted artillery were also flown in, either directly from the Soviet Union or via trans-shipment through Aden.[16]

Two problems concerning overflight rights arose during the airlift and stemmed from (1) the Soviet passion for secrecy and (2) the violation of foreign, sovereign airspace enroute to Ethiopia. The desire for secrecy was intertwined with the necessity to develop and utilize more than just the route used for routine resupply (Route 6). An airlift of this size would have taxed the Libyan airhead, the former U.S. Wheelus Air Base, and would have drawn unnecessary attention to the operation. Immediately prior to the airlift Moscow requested significantly more overflight authorizations than the Soviets eventually used.[17] Several explanations are plausible.

One reason was to keep their intentions secret until the last possible moment. By coordinating routes only as far as the PDRY, the true final destination could have remained in doubt for a bit longer. This is very unsophisticated, but cannot be overlooked. It would also have allowed Soviet planners more flexibility in moving the arms. With many routes and transit times from which to choose, departures and arrivals could be more responsive to anticipated changes in the situation

MAP 2

SOVIET ROUTES DURING THE ETHIOPIAN AIRLIFT



SOURCE: "Soviet Ethiopian Supply Routes," Aviation Week & Space Technology, 2 January 1978, p. 15.

TABLE 9

EXPLANATION OF MAP 2

ROUTE	ONE WAY DISTANCE (SM)	COUNTRIES OVERFLOWN
1	3,250	Afghanistan, Iran, Pakistan, Oman, PDRY, Djibouti
2	3,700	Iran, Oman, PDRY, Djibouti
3	3,650	Turkey, Cyprus, Syria, Iraq, Saudi Arabia, PDRY, Djibouti
4	3,250	Turkey, Syria, Jordan, Egypt, PDRY, Djibouti
5	10,800	Iran, Iraq, Syria, Egypt, Libya, Algeria, Mali, Guinea, Sierra Leone, Liberia, Ivory Coast, Angola, Zaire, Sudan
6	4,700	Bulgaria, Yugoslavia, Libya, Sudan

NOTE: These distances approximate the routes shown on Map 2. The routes do not necessarily reflect the exact distances flown or the countries overflown during any given flight.

NOTE: Route 5 was planned but never flown (Aviation Week & Space Technology, 2 January 1978, p. 15.)

at any point along the entire supply route. Finally, and probably most importantly, the abundance of route clearances provided a hedge if the sealift proved unworkable.

Ethiopia's seaports, Massawa and Assab, are both in Eritrea. Massawa, the major port, was controlled by government forces, but portions of the road to Addis Ababa were controlled by the Eritrean separatists. Movement of equipment from Massawa to the Ogaden would have been unreliable if the army failed to clear the road for convoys. The port of Assab was small and could have become a real bottleneck because it could not handle the tonnages required. In addition, the only route to Addis Ababa was a narrow road running partially through rebel-held lands. Finally, the railroad between the port of Djibouti, Ethiopia's main access to the sea, had been cut in four places since June 1977, and was unreliable at best.[18] Initially, the overflight requests were processed

and approved routinely by low level bureaucrats, but as the significance of the airlift vis-a-vis the Ethiopian-Somali situation became apparent, top level policy makers reviewed and withdrew many authorizations to overfly their countries.[19]

The Soviets did not help their own cause with their passion for secrecy. On 19 December, the Soviets reportedly lied to the officials of three countries concerning the nature of aircraft cargoes. The true nature of the cargoes, arms, became known only after the aircraft had departed sovereign airspace.[20] The offended governments had been placed in a potentially dangerous political situation because granting permission to move military cargo is a much more sensitive matter than is the permission required to move civilian cargo. This Soviet chicanery was difficult to accept. To compound the problem further, Soviet pilots were known to file flight plans with false routings and/or destinations. One such deception was to list Maputo, Mozambique as destination.[21]

The problem of unauthorized overflights developed because the Soviets were known to have deliberately departed Georgiyevsk or Tashkent without enroute overflight privileges. Of those countries along the various Soviet routes, the following were reportedly overflown at least once without permission: Pakistan, Iran, Turkey, Saudi Arabia, Egypt, Sudan, and Yugoslavia.[22] Each violation was a problem unto itself and also part of a much larger problem; Moscow's disdain for the channels of conventional diplomacy. Apparently, Moscow was counting on the fact that offended nations would do little more than register diplomatic protests which the Soviets could ignore, deny, or take under advisement as the situation dictated. The worst-case gamble was that someone would counter further violations with interception and possible destruction of the aircraft and crew.

Pakistan's problem was compounded by the fact that she was aiding Somalia. Saudi Arabia and Iran were upset because the unauthorized flights were being conducted over the Strait of Hormuz and the Saudi and Iranian oil fields. The spying potential was more than the rulers could ignore. Egypt and Sudan also complained.[23] As far as can be determined, the unauthorized flights over all of these countries were halted. However, the unauthorized flights over Turkey, the authorized flights over Syria and Iraq, and the movement of Cuban troops from Angola presented other interesting variations.

During this period, the U.S. was actively trying to defuse the situation in the Horn by refusing to supply Somalia with arms and calling upon the Soviets to restrain themselves in behalf of the Ethiopians. Meanwhile, Turkey, a NATO ally, was permitting the Soviets to continue shipping arms via Turkish airspace. Why? Location. Having a long common border with the Soviet Union, the Turkish government always acts carefully when dealing with the Russian bear. NATO Europe and the U.S. are distant allies. It was also felt that the Soviets would have denied Turkey air access to Western Europe via Bulgaria and Eastern European.[24]

Achieving overflight rights from Syria and Iraq represented a diplomatic coup of a different type. Permission to overfly two Moslem nations to deliver arms to a non-Moslem nation which was fighting a Moslem nation was gained by using leverage. Refusal to grant overflight rights could have resulted in an Iraqi and Syrian arms delivery slowdown such as had happened in Somalia, but permission could have irritated the most moderate Arab world. After the airlift ended, however, new weapons, never before seen in either Syria or Iraq, made

their appearance. Reports from Damascus indicated that some of the post-Ramadan War debt had also been forgiven.[25] Syrian and Iraqi thinking on the matter was obvious.

The Cuban troop movement problem was also handled with facility. While the majority of Cubans sent to Ethiopia were moved by sea from Angola, those who were airlifted from Angola were carried aboard Ethiopian Air Lines Boeing 707s.[26] The use of a civilian carrier to transport passengers not only lowered the Soviet profile but also simplified the overflight problem. Soviet use of aircraft with Aeroflot markings falls into this category of deception.

In late December the airlift was reduced to a trickle. Of course, the sealift was able to handle the entire supply effort as long as the Red Sea port of Assab and the road link between Assab and Addis Ababa remained open. One explanation for the lull is that the complaints of unauthorized overflights had become so great that the Soviets decided to assume a low profile to ease diplomatic pressure. Another is that the Ethiopians just needed time to absorb all of the newly-acquired arms and training.[27] The lull did not represent a major policy shift, and within ten days the airlift was resumed, although not at its former intensity.[28]

The Ethiopian Army launched its long-awaited Ogaden offensive in February 1978. The influx of sophisticated arms and the training by Cuban and East German advisors were apparent immediately. As Ethiopian troops advanced against the Somali Army, Soviet MiGs, tanks, heavy artillery, rocket launchers, and tactics made themselves felt. Attack helicopters and airborne troops were reported operating very effectively behind Somali lines.[29] The Soviets had introduced a level of sophis-

tication previously unseen in African warfare and the Somali Army was overwhelmed. In early March 1978, President Siad Barre withdrew his troops from the Ethiopian Ogaden. Much of his heavy equipment had been abandoned during the rainy season retreat and approximately one-third of his 25,000 man, Soviet-trained and equipped army had been destroyed.[30] The Ethiopians did not invade Somalia; instead they turned their attention to the separatist problem in Eritrea.

How did strategic airlift make its impact? Certainly it provided an immediate and highly visible means for the Soviets to demonstrate their support for the revolutionary Dergue. When the Soviets realized that they could not play both sides of the street, their immediate response served notice to the interested parties that the Soviet commitment to Ethiopia was to be taken seriously and that Moscow had no intention of losing all influence in the Horn without a fight. Just as important, the operation challenged and exercised the Soviet airlift system. Although not a true combat environment and on a much smaller scale than the 1973 War, Ethiopia presented a much greater challenge than a similar-sized exercise within the Soviet Union or Warsaw Pact nations. There was also the need to ascertain how the Il-76 would perform as an integral part of the strategic system. The speed with which the VVS and VTA responded served notice that the airlift system was a force to be taken into account.

Another consideration, however, is that failure of the massive supply effort, the highly visible embodiment of Soviet foreign policy in Ethiopia at the time, would have been a devestating blow to Soviet prestige and its goals in the Third World. Had the Soviets failed to act aggressively, the Ogaden surely would have remained in Somali hands.

Mengistu's internal political opposition would have immobilized the government, rendering it totally unfit and incapable of governing and the Eritrean separatists would have gained independence from the powerless Dergue. With the loss of Eritrea and the Ogaden, Ethiopia would have been reduced to one-half of its former size and she would have become a landlocked state. Worst of all to the Soviets, they would have been swept from the Horn in less than a year and Kremlin designs for strategic control would have been thwarted.

END NOTES

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[9]"Cuban troops leaving Angola for Ethiopia," Christian Science Monitor, 4 October 1977, p. 2; and Hovey, p. 1

[10]Darnton, "Somalia is Ordering Soviet Advisors Out," p. 1.

[11]Ibid.

[12]Hovey, p. 1.

[13]Middleton, p. 9; and "On the wings of a bear," The Economist, 21 January 1978.

[14]Middleton, p. 9; Hovey, p. 1; "Ethiopia: Just how far will the Kremlin go?" p. 9a; and "Massive Soviet Airlift of Arms to Ethiopia said to Swamp Airport," p. A22.

[15]"Massive Soviet Airlift of Arms to Ethiopia said to Swamp Airport," p. A22; and "Ethiopian Airlift," Christian Science Monitor, 21 December 1977, p. 2

[16]"Ethiopia: Just how far will the Kremlin go?" p. 9a; and "Massive Soviet Airlift of Arms to Ethiopia Said to Swamp Airport," p. A22.

[17]Bonner Day, "Soviet Airlift to Ethiopia,""Air Force Magazine, September 1978, p. 33.

[18]"Ethiopia: Just how far will the Kremlin go?"p. 9a.

[19]Day, p. 33.

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[25]Ibid.

[26]Ibid.

[27]George C. Wilson, "Soviets Suspend Airlift of Arms for Ethiopia," Washington Post, 6 January 1978, p. A11.

[28]Henry S. Bradsher, "Soviets Resume Airlift of Arms to Ethiopians," Washington Star, 8 January 1978.

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CHAPTER 5

ANALYSIS

Thus far, we have reviewed the history of the Soviet air forces with emphasis on events which either fostered or hindered the development of military air transport. However, important influences within the civilian sector often dictated the characteristics of the civil and military airlift fleets. We have also seen that over the last decade the VTA, with help from Aeroflot, has performed very effectively within the Middle East and Africa. Not surprisingly, the proximity of the airlift operation to the USSR generally dictated the quantity and quality of the subsequent effort. We will now discuss the forces acting upon airlift and VTA development within the context of Soviet foreign policy.

After 1917, the Bolsheviks held title to the world's largest, but also one of the world's poorest, countries. Development of the Soviet Union east of the Urals eventually proved essential to the growth of the USSR as an industrial power. The problems inherent in this development were both geographic and economic. Asian USSR is an enormous area of mountains, marshes, permafrost, forests, and plains. These geographic characteristics, together with persistent under-investment in transportation facilities because of inadequate economic resources, successfully deprived the region of any significant transportation infrastructure. Except for the Trans-Siberian Railroad, the only reasonably reliable means of communication and transportation with the rest of the USSR was by air. Indeed, by 1937, more than 900 Siberian settlements were largely dependent on airplanes for transportation, communication, and supply.[1]

The development of these air lines of communication in the rugged Siberian environment fell to civil air fleet, formerly the GVU and now the GVF, more commonly known as Aeroflot.

Circumstances dictated the employment of rugged aircraft which could be simply operated and easily maintained. Initially the job was accomplished with a wide assortment of smaller aircraft and some converted bombers. In the 1950s, however, with the introduction of the An-8 and An-10, the Soviets developed the first in a long line of rugged airlifters capable of assisting both in the development of Siberia and in serving as military cargo and passenger aircraft. This marriage of roles and of assets has continued to this day with the development of the An-12, An-22, and Il-76, the aircraft with which we are most interested.[2] All three of these aircraft serve with Aeroflot and the VTA. Each is a qualitative improvement over its predecessors in its ability to perform the airlift mission between austere, forward operating locations. It is precisely the requirement to operate in Siberia which gives some analysts the mistaken notion that this capability can be transferred with little difficulty to Third World nations with similarly austere conditions.

The fact that all VTA strategic airlifters are also operated by Aeroflot does give the Soviets some unique advantages. In all large-scale airlift operations, the presence of Aeroflot marked aircraft has been conspicuous. While the ability to call upon Aeroflot to provide commerical airlift augmentation represents great flexibility, the ability merely to change markings on VTA aircraft to give the appearance of using commerical aircraft provides even greater flexibility. Nor does it necessarily present a military presence where none is desired. Ap-

parently, in the pragmatic "ends justifies the means" atmosphere of Soviet foreign policy formulation, particularly regarding the Third World, this chameleon like ability is essential.

Other advantages include Aeroflot's route structure and its close relationship with the VTA. Aeroflot operates 200,000 miles of routes to 96 cities outside of the USSR. While not impressive by some standards, this structure is significant when viewed in the context of the number and location of cities in the Third World which are served and when viewed as an instrument for military and intelligence data gathering.[3] The other distinct advantage, the closeness of the Aeroflot-VTA working relationship, is certainly not coincidental. Aeroflot officials are all members of the Soviet Air Force. Most pilots hold wartime mobilization assignments and are subject to recall to military duty. This relationship plus the availability of aircraft and equipment permits extremely rapid augmentation and creates an operational flexibility unparalleled in the world's air forces. It also provides an important source of internationally experienced pilots, previously a Soviet weakness.

The benefits conferred by Aeroflot are balanced by certain shortcomings. One analyst suggests that Aeroflot's worldwide logistics infrastructure can also provide equipment and manpower to process cargoes generated by airlift operations.[4] This is true to a limited extent. It must be pointed out that some destinations are serviced so infrequently that contracts are let to local companies to provide essential aircraft and passenger handling services. Therefore, the number of Aeroflot personnel is actually very modest. They would be incapable of processing the masses of equipment we have seen airlifted within the last seven

years. In all previous cases, the Soviet military brought in its own people to conduct the operation, especially the control function.[5]

Nor can Aeroflot disguise a truly large or intensive operation. Not only are these operations susceptible to casual observation but both the congestion generated at departure and destination airfields and the increased movement along the route structure make them highly vulnerable to satellite photographic interpretation.[6] The Soviet advantage then hinges on whether anyone can or will take action when an operation has been detected.

Let us now turn our attention to the VTA's role in the projection of military power. Plagued by sea ports which became ice bound during the winter, Russia traditionally projected power on the ground, necessarily limiting her influence to her immediate neighbors. This remained true until recently when the Soviets finally developed a truly global navy through intensive naval development and judicious basing agreements. This blue water navy is now developing as a power projection vehicle concurrently with the VTA. But the VTA is better able to project power rapidly and with more flexibility than any other method. However, such has not always been the case.

The Soviets' first attempt at a large scale strategic airlift began on 11 July 1970, as a humanitarian response to a devastating earthquake which struck Peru on 30 May.[7] With much publicity, the Soviets announced that they would send 65 plane-loads of supplies and equipment to Peru beginning in July, and that the entire airlift would be completed within one week.[8] A normal mission departed Moscow for Lima, Peru with enroute stops at either Iceland and/or Newfoundland, Cuba and Baranquilla, Columbia.[9] From 11-18 July, only 12 An-12 and An-22 aircraft completed

the trip. On 18 July, an An-22 carrying hospital supplies and a crew of 33 was reported missing in the North Atlantic between Iceland and Newfoundland.[10] The airlift was suspended for one week, after which nine more aircraft arrived in Lima before the operation was canceled on 26 July. Peruvian officials were told that the rest of the promised supplies would arrive by ship.

According to U.S. officials, the airlift had four primary objectives, none of which were fully achieved. The objectives were: (1) to provide humanitarian relief, (2) to convince Latin Americans that any communist regime gaining power could count on speedy supply of military equipment and economic aid by air, (3) to convince Latin Americans that the Soviets could move large amounts of material long distances, quickly, and (4) to serve as long range proving flights for the An-12 and An-22.[11] In short, the purpose of the operation was to demonstrate power projection.

The Soviets had refueling problems at every stop, including Cuba. Even though the aircraft had Aeroflot markings, they were fitted with military refueling receptacles for which no adapters were available, necessitating manual refueling.[12] Whether these difficulties were confined to planes with Aeroflot markings, or whether all An-12s and An-22s had the same fittings, is unknown. It is also probable that the Soviets found global airlift over unfamiliar routes to strange, Western bases considerably more difficult than anticipated.[13] The propaganda impact was lost and the Soviets terminated the operation with a great deal of embarrassment.

The next operation, the arms resupply during the Fourth Arab-Israeli War, went considerably more smoothly although much of this success must be attributed to shorter routes closer to home, the use of some

Russian speaking controllers, and the use of friendly bases. Most of the problems encountered in 1970 were mitigated because of the regional nature of this effort. The low average load per aircraft sortie (see Table 3) remains a mystery and still resembles a command and control problem.

The 1975-1976 Angolan resupply is a perfect example of power projected to support a socialist regime--a basic concept of the Brezhnev Doctrine. Again, there was no public announcement of Soviet intent. The situation was considerably different in Angola than in most places in the Third World. For the 18 months after the Portuguese coup in 1974, the Portuguese Communist Party had a great deal of influence within the government and with Army leaders governing Angola during transition. Hence, there was little fear of reprisals for open arms shipments to the Movement for the Liberation of Angola (MPLA). Indeed during the year preceeding independence, the Soviets supplied the MPLA with $110 million in aid as opposed to $54 million during the previous 14 years.[14] The types of equipment imported roughly paralleled that brought into Syria and Egypt and subsequently, Ethiopia. The total airlift in late 1975 and early 1976 included at least 40 Il-76 and An-22 missions.[15] See Map 2, Route 6, for an approximation of the route flown. This routing is particularly important because it included stops only in countries with which the Soviets had maintained long, cordial relations thus indicating a desire to operate from familiar territory as much as possible.

One event occurred which reconfirmed the limits of Soviet power far from the homeland. The Soviets were using Cuban An-12s to move Cuban troops and advisors to Angola to keep the Soviet profile as low as possible. Cuba had been using the Bridgetown, Barbados airport as

a refueling stop for the Guinea-Bissau Luanda bound flights, which reached a high of three per day in December 1975. The United States government complained to the Barbados government that these troops were being used to interfere in Angola's internal affairs and would Barbados, therefore, deny refueling rights to the Cuban aircraft? On 18 December, the Barbados government did deny Cuba the right to refuel these troop carrying transports.[16] The U.S. then quietly persuaded the Guyanan government to impose the same restriction, with the result that the Cuban-operated airlift was effectively terminated.[17] To move the Cubans to Angola by air, the Soviets were then forced to enter the airlift from Cuba with Aeroflot Il-62s. This phase lasted from 7 to 14 January 1976, with about 12 flights from Cuba to Angola.[18]

The Ethiopian airlift of 1977-78 continued the pattern established in 1973 and 1975--support for clients under the guise of the Brezhnev Doctrine. In Ethiopia, however, the stakes were higher: to win influence with the Organization of African Unity headquartered in Addis Ababa. Failure would terminate any influence whatsoever in the strategically-placed Horn of Africa. During this airlift, unlike the previous two, the Soviets did not hesitate to violate soverign air space. This apparently demonstrated Soviet confidence in their role as the superpower in the region and a certain disdain for everyone else's rights. Judging from the complaints and the attendant cessation of unauthorized overflights, Soviet confidence might have been a bit premature. Any doubt about the Kremlin's willingness to project power regionally and to disregard world opinion was cast aside in December 1979, when the Soviets invaded Afghanistan.[19] The airlift of troops into Afghanistan does not fall into the category of strategic operations,

primarily because of the short distances involved. However, the use of strategic airlift was dictated by the inferior Afghani surface transportation system; no railroads existed, and the possibility was that snow-choked mountain passes might slow the advance. The airlift, when coupled with shock and surprise, little or no organized resistance because of sabotaged Afghani equipment, and the use of MiG fighters for air cover, assured a successful invasion.[20]

During 24-26 December 1979, approximately 250 An-12, An-22, and Il-76 aircraft carrying troops and equipment landed at Kabul International Airport on the outskirts of the Afghan capital. Ten-minute landing intervals were standard, and Aeroflot markings were evident. The troops were apparently from the 105th Airborne Guards Division from Fergona, USSR and the whole landing, airfield seizure, and expansion of the airhead went just as planned.[21]

The operation was well-conceived and carefully planned. U.S. officials feel that the decision to invade Afghanistan had been made during the summer of 1979 in response to the steadily deteriorating situation in Iran and Soviet fears of an exported Islamic Revolution and subsequent removal of Afghanistan from the Soviet orbit. By 5 January, more than 300 Soviet transports had ferried troops and equipment into the country. As conventional road movement and security were established, the airlift tapered off to a sustaining rather than a build-up flow.[22]

We have explored the Kremlin's ability to project power via strategic airlift. The ability presently exists, and indications are that it will grow with the introduction of new equipment. A remaining question is why do the Soviets feel compelled to develop a sophisticated network of basing and refueling agreements, and treaties in conjunction

with a growing air and naval power projection capability? One answer is the USSR's superpower status. But it is deeper than that. The United States, partially by an accident of geography and partially by events, developed all of the assets required to propel it toward a position of world power. The United States' physical isolation, however, also required a strong navy to protect its shores, the sea lanes so vital to intercourse with Europe and Asia, and eventually the ability to project power to aid its allies. After World War II, the requirement to move forces and equipment rapidly to any troublespot where U.S. interests or treaty obligations were threatened, necessitated a strong strategic airlift fleet.

In this light, the Soviets correctly viewed the U.S. ability to project power as a central feature of U.S. capability to maintain an international system suitable to its interests. The Soviets were impressed by America's ability to intervene in Lebanon in 1958 and distressed at their own inability to exploit properly the 1962 Cuban Missile Crisis. Since that time, the Soviets have built an interlocking network of base, overflight, and mutual support agreements. Between 1962 and 1980 they also made qualitative improvements in their seven airborne divisions and in the ability to deploy them rapidly--the An-22 and Il-76.[23]

The motive, to be able to control events, was there. The only thing lacking was a doctrine which would add a shred of legitimacy to their actions, especially within the USSR's prime target, the Third World. The preparation and aftermath of the August 1968 invasion of Czechoslovakia provided the opportunity to fashion a doctrine. The Brezhnev Doctrine stated that the Soviets would use any power necessary

to support socialist regimes and wars of national liberation. The Soviets have applied this doctrine no fewer than four times since its formulation, and they have been unsuccessful only once, when they were actively challenged by the U.S. in 1973.

Power projection does not occur in a vacuum. It usually occurs in response to a threat to one's interests or in response to an adversary's weakness. The current Soviet thrust seems to be to exploit short term weaknesses to gain long term advantage. Since the Czechoslovakian invasion, the Soviets have continued their expansion into the Third World with little or no effective Western response, save during the Arab-Israeli War. The Soviet record is impressive and demonstrates a willingness to commit forces, including surrogates, to support clients and to maintain instability, by Western standards, in the international arena. Thus far, the U.S. and its allies have behaved more like casual acquaintances who cannot agree on a common goal, let alone a course of action to achieve that goal. It is precisely this uncertainty which has encouraged continued Soviet hegemonistic actions.

While the thrust of events seems to be favoring the Soviets, not everything has gone smoothly for them in the Third World. The recent defections of Egypt, Sudan, and Somalia from the Soviet sphere have underscored the fact that the ability to project power, either via sea or air, does not guarantee the ability to exercise the power projection option. If this is true regionally, it is certainly true globally. This is not to say that the Soviets have not backed regimes which they feel are highly susceptible to Soviet influence such as in Angola, Ethiopia, and Mozambique. Obviously the Soviets are counting on continued success in these areas to continue their program of strategic control.

END NOTES

[1]William S. Friedman, "Air Transportation: A Key Factor in Soviet Strength," Pegasus, April 1951, p. 4.

[2]For complete specifications on these aircraft and their ability to operate from austere locations see Jane's All the World's Aircraft, 1964-1977, and Appendix 1.

[3]William Schneider, Jr., "Soviet Military Airlift: Key to Rapid Power Projection," Air Force Magazine, March 1980, p. 81; and Official Airline Guide: Worldwide Edition, April 1979, pp. T-4 through T-6.

[4]Schneider, p. 81.

[5]Caryle Murphy, "Angola's Marxists Remember When Soviets Dumped Them," Washington Post, 16 January 1976, p. A14.

[6]"Soviet Ethiopian Supply Routes," Aviation Week & Space Technology, 2 January 1978, p. 5.

[7]"Soviet's Airlift to Peru Halted," New York Times, 26 August 1970, p. 11.

[8]Ibid.

[9]Ibid.

[10]"Soviet Relief Plane to Peru is Missing Over North Atlantic," New York Times, 19 July 1970, p. 22.

[11]"Soviet's Airlift to Peru Halted," p. 11.

[12]Ibid.

[13]Ibid.

[14]Fred Bridgland, "South African Regulars Fight Inside Angola," Washington Post, 23 November 1975, p. A16.

[15]Ibid; and Robert P. Berman, Soviet Air Power in Transition, (Washington, D.C.: The Brookings Institution, 1978), p. 14.

[16]"Barbados Bars Angola Flights," Washington Post, 19 December 1975, p. A10.

[17]Jeremiah O'Leary, "U.S. Envoy Pushes Effort to Counter Angola Meddling," Washington Star, 28 December 1975.

[18]"Cuban Airlift to Angola Halted," Washington Post, 6 February 1976, p. A14.

[19]The word "invade" may be offensive to some, but the fact that Soviet troops entered Afghanistan on 25 December to support a regime established two days later supports the use of the word invasion.

[20]Barry Shlachter, "Soviets' Surprise Worked," Kansas City (Mo) Star, 13 January 1980, p. 28A; and "Trickery by Russians," New Zealand Herald, 26 February 1980, p. 10.

[21]"Soviet Afghanistan Move Keyed to Airlift," Aviation Week & Space Technology, 7 January 1980, p. 15.

[22]"Arms Aid to Pakistan Expected," Aviation Week & Space Technology, 14 January 1980, pp. 13-14.

[23]W. Scott Thompson, The Projection of Soviet Power, (Santa Monica, Ca.: Rand Corporation, 1977), p. 4-5.

CHAPTER 6

CONCLUSIONS

This decade of the 1980s will be critical in the context of East-West relations. The brutal Soviet invasion of Afghanistan, the total chaos in Iran, the volatile political situation in the Middle East, and the American emergence from its self-indulgent, post-Viet Nam world view foreshadow a reawakening of the West's role in maintaining a stable world situation. In this context, I envision European allies literally forced into improving and increasing their commitments to NATO as the United States expands its role in the Third World areas vital to its interests. But what can we expect from the Soviets?

Obviously, the Soviets will not become quiescent. They have built up momentum in the Third World, an area in which many leaders are either avowed socialists or socialist sympathizers, and I do not forsee the Soviets relinquishing their position without a struggle. Undoubtedly, they will continue to improve the quality of their airlift force by replacing the An-12s with Il-76s. If they overcome the technological difficulties which they are experiencing in developing the An-40, a large fleet of these aircraft in conjunction with the continuing production of Il-76s could signal their intentions to continue expansion in the Third World at an accelerated rate.[1] If they simultaneously keep pressure on NATO Europe, the outcome is likely to be a relatively weak western response in the Third World in deference to the threat to NATO's forces. An alternative course of action, and one which the Soviets

would enjoy, would be partial American withdrawal of some NATO committed forces for primary deployment elsewhere and secondary commitment to NATO. This is a very risky course, but one which cannot, at this time, be discounted.

The Soviets are fully committed to the cause of world socialism and will not hesitate to advance this cause in the future. As we have seen, their position in Africa and the Middle East is very good with regard to basing, refueling, and overflight rights and should continue to improve. The Iranian-Iraqi border disputes of early 1980 may give the Soviets the opportunity to establish a presence in Iran as a "protector" against Iraqi adventurism. The Soviets would turn on Iraq instantly if they, the Soviets, could bring Iran under their sway. The outlook for the Soviets, therefore, seems to be quite bright, but as I stated earlier, things do change.

Soviet ability to project power quickly and arrive with troops, equipment and other forms of support lends legitimacy to their actions and requires a proportionally larger force to dislodge them.[2] Confrontation with another power, especially the United States, is not desired; therefore, the ability to react quickly, to establish a presence, to achieve their goals, and to consolidate their position will continue to characterize Soviet actions.[3]

The fact that the Soviets have not made a commitment to add an aerial refueling capability to the Il-76 leads me to believe that their hegemonistic visions will remain primarily with Africa and the Middle East. Latin America may enter their planning later, but recent rebuffs to Castro style communism and the relative advantage that the U.S. would have in that area, if it chooses to act, dictate against it. Also, the

Soviets have made the most of their current world gains under the umbrella of detente, a concept which they understood and used well. Consolidation of their influence and strengthening of their positions in the region should characterize the 1980s.

The VTA/Aeroflot strategic combination is certainly impressive, especially in light of its historical antecedents, but miracles are in limited supply. Soviet foreign policy decisions drive the system, and history indicates that if the Soviets can achieve their goals peacefully, to their way of thinking, there is no reason why they should not try.

END NOTES

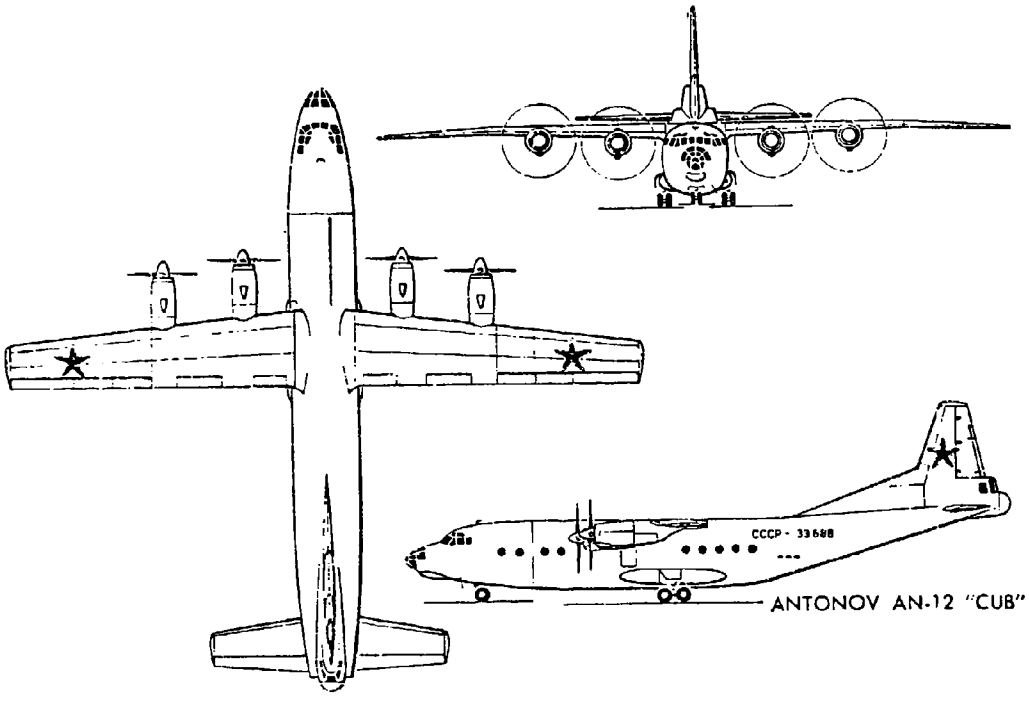
[1]William Schneider, Jr., "Soviet Military Airlift: Key to Rapid Power Projection," Air Force Magazine, March 1980, p. 85.

[2]W. Scott Thompson, The Projection of Soviet Power, (Santa Monica, Ca.: Rand Corporation, 1977), p. 8.

[3]As mentioned previously, Soviet airborne forces have been upgraded significantly in recent years; therefore, it would be foolish to discount them as a means for achieving foreign policy goals. Their use in the airland mode in Afghanistan in 1979 is characteristic of Soviet airborne doctrine of insertion, consolidation, and exploitation. For an excellent, though brief, article on the subject of airborne forces, see Richard Oden and Frank Steinert, "The Soviet Airborne Troops," Review of the Soviet Ground Forces, March 1980, pp. 5-12.

APPENDIX 1

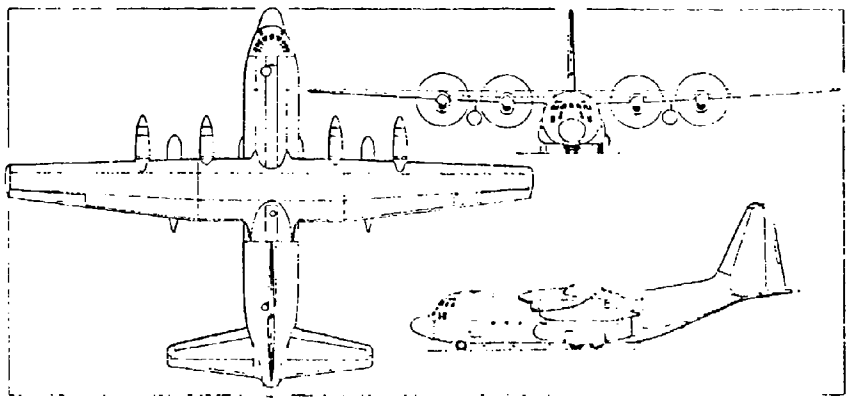
OPERATING PARAMETERS OF SELECTED SOVIET AND U.S. TRANSPORTS



ANTONOV AN-12 "CUB"

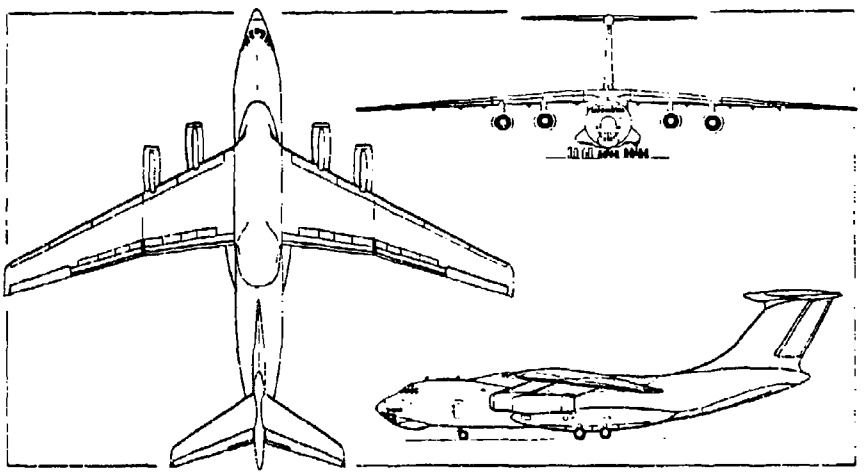
FIRST FLIGHT	March 1957 as the An-10A
ENTERED SERVICE	1960
NUMBER IN SERVICE	560
WING SPAN	124' 8"
LENGTH	108' 7 1/4"
CARGO COMPARTMENT (L,W,H)	44' 3 1/2", 11' 6", 8' 6 1/4"
ENGINES	4 turboprops at 4000 ehp each
CREW	6
NORMAL T.O. GROSS WEIGHT	121,- lbs
CRUISE SPEED	342 mph
AIR REFUELABLE	No
ARMAMENT	Tail turret with twin 23 mm guns

SOURCES FOR THIS APPENDIX: John W. R. Taylor (ed.), Jane's All The Worlds Aircraft, (London: Jane's Yearbooks, 1964-1977).



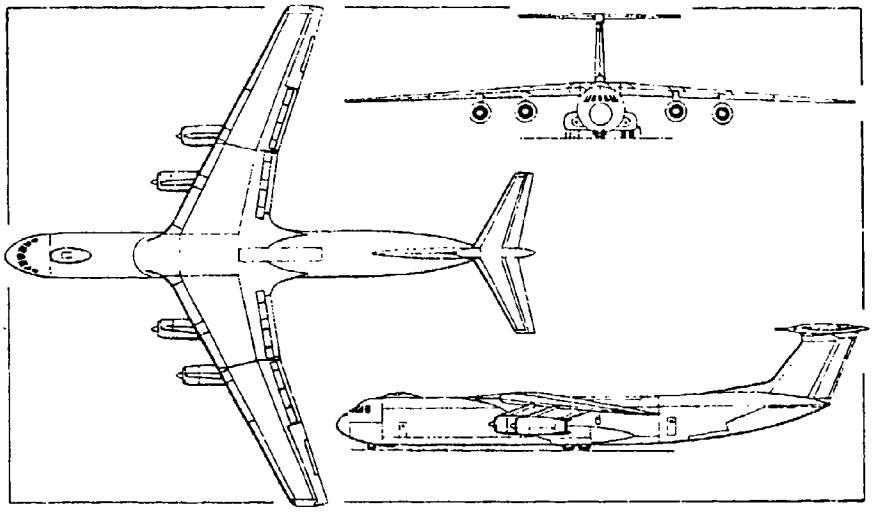
Lockheed C-130E Hercules four-turboprop medium long-range combat transport (Paul Pace)

FIRST FLIGHT	23 August 1954 (C-130A)
ENTERED SERVICE	December 1956 (C-130A)
NUMBER IN AIRLIFT SERVICE	231 (E&H models, 271 in Reserve Forces)
WING SPAN	132' 7"
LENGTH	97' 9"
CARGO COMPARTMENT (L,W,H)	51' 8 1/2", 10' 3", 9' 3"
ENGINES	4 turboprops at 4508 ehp each
CREW	5
NORMAL T.O. GROSS WEIGHT	155,000 lbs.
CRUISE SPEED	300 mph
AIR REFUELABLE	No
ARMAMENT	None



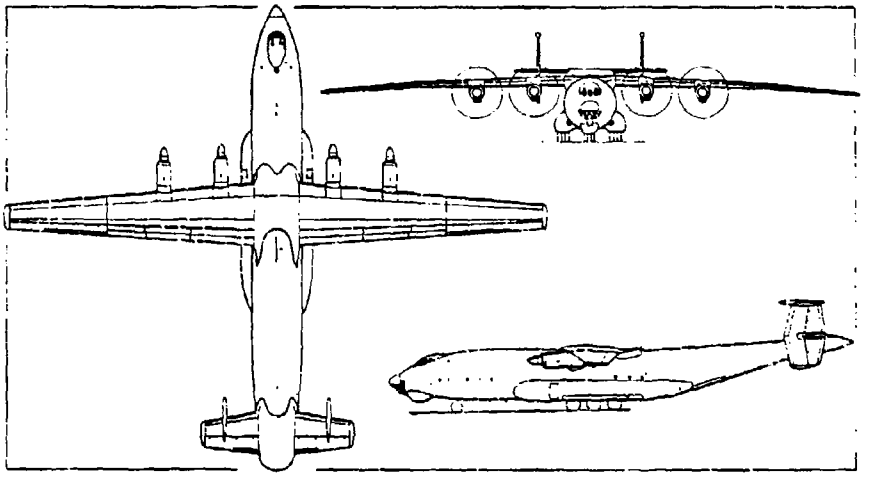
Ilyushin Il-76 four-turbofan heavy freight-carrying transport *(Pilot Press)*

FIRST FLIGHT	25 March 1971
ENTERED SERVICE	1974
NUMBER IN SERVICE	100
WING SPAN	165' 8"
LENGTH	152' 10 1/2"
CARGO COMPARTMENT (L,W,H)	80' 4 1/2", 11' 4 1/4", 11' 2"
ENGINES	4 turbofans at 26,455 lbs. each
CREW	3-5
NORMAL T.O. GROSS WEIGHT	346,125
CRUISE SPEED	528 mph
AIR REFUELABLE	No
ARMAMENT	Tail turrent with twin 23mm guns



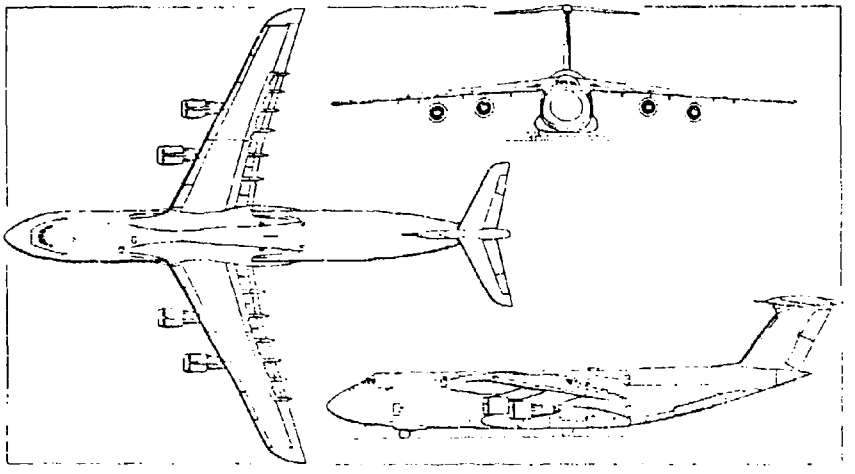
Lockheed YC-141B lengthened version of the StarLifter logistics transport *(Pilot Press)*

FIRST FLIGHT	17 December 1963
ENTERED SERVICE	20 October 1964
NUMBER IN AIRLIFT SERVICE	234
WING SPAN	160' 1"
LENGTH	145' (C-141B: 168' 4")
CARGO COMPARTMENT (L,W,H)	81' (C-141B: 104' 4"), 10' 3", 9' 1"
ENGINES	4 turbofans at 21,000 lbs each
CREW	5
NORMAL T.O. GROSS WEIGHT	323,100 lbs
CRUISE SPEED	490 mph
AIR REFUELABLE	No (C-141B: Yes)
ARMAMENT	None



Antonov An-22 Antheus long-range heavy transport aircraft *(Pilot Press)*

FIRST FLIGHT	27 February 1965
ENTERED SERVICE	June 1967
NUMBER IN SERVICE	50
WING SPAN	211' 4"
LENGTH	189' 7"
CARGO COMPARTMENT (L,W,H)	108' 3", 14' 5", 14' 5"
ENGINES	4 turboprops at 15,000 eph each
CREW	5-6
NORMAL T.O. GROSS WEIGHT	551,160 lbs
CRUISE SPEED	360 mph
AIR REFUELABLE	No
ARMAMENT	None



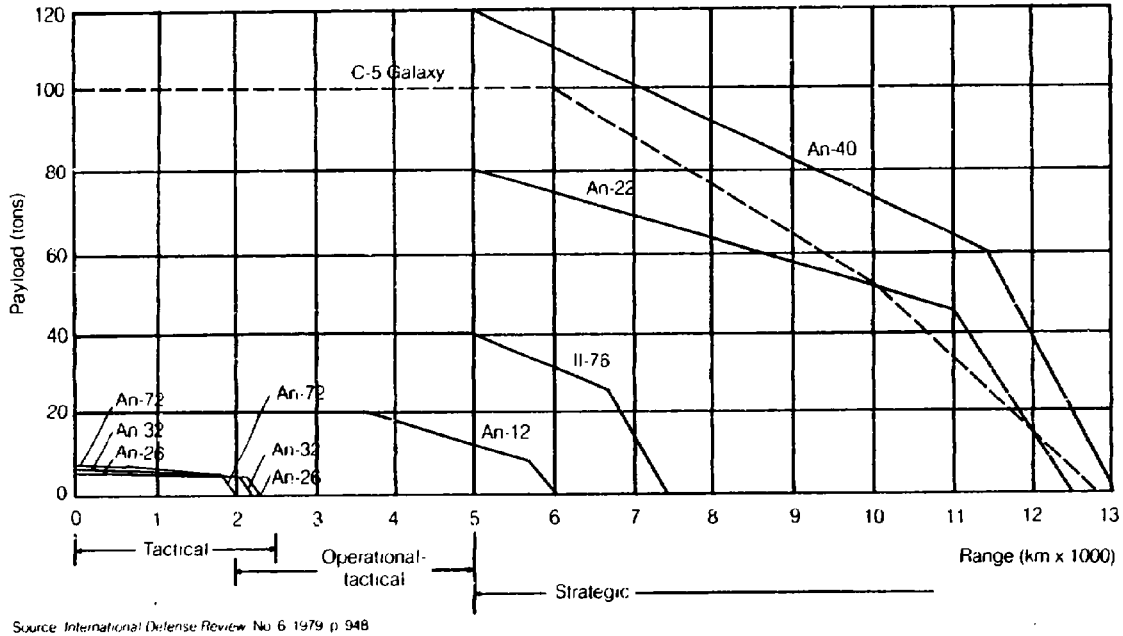
Lockheed C-5A Galaxy four turbofan military heavy transport aircraft [illegible]

FIRST FLIGHT	30 June 1968
ENTERED SERVICE	17 December 1969
NUMBER IN AIRLIFT SERVICE	70
WING SPAN	222' 8 1/2"
LENGTH	247' 10"
CARGO COMPARTMENT (L,W,H)	144' 7", 19', 13' 6"
ENGINES	4 turbofans at 41,000 lbs each
CREW	6
NORMAL T.O. GROSS WEIGHT	712,500 lbs (wing loading restriction)
CRUISE SPEED	518 mph
AIR REFUELABLE	Yes
ARMAMENT	None

APPENDIX 2

PAYLOAD/RANGE PERFORMANCE OF SOVIET TRANSPORTS

PAYLOAD/RANGE PERFORMANCE OF SOVIET TRANSPORTS

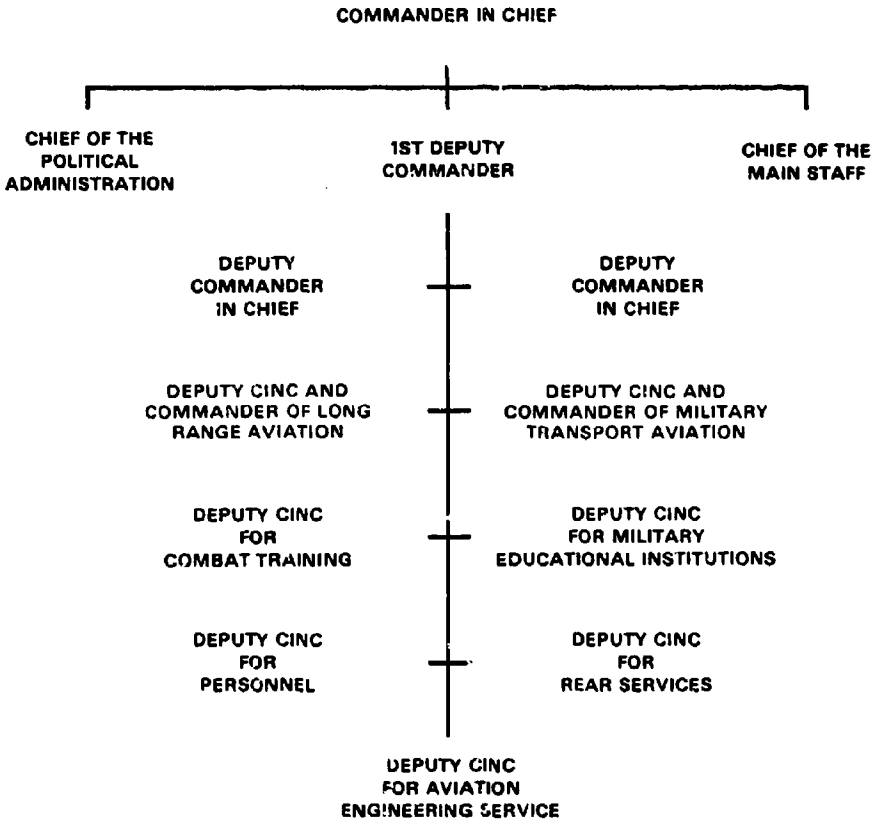


Source: *International Defense Review* No 6 1979 p 948

NOTE: The C-5 (dotted line) is shown for comparison. An-40 data is theoretical

APPENDIX 3

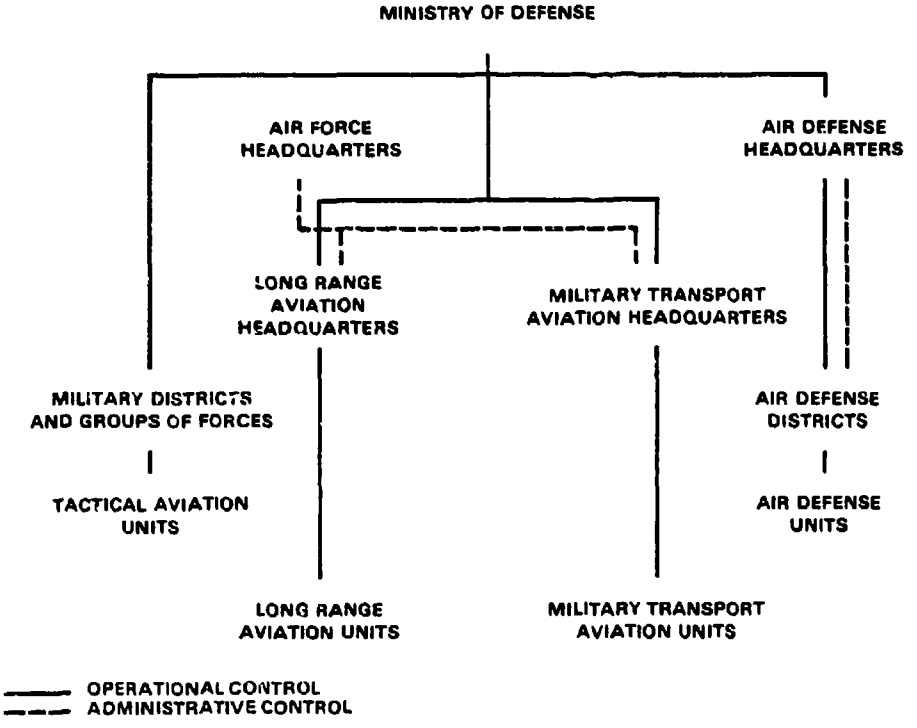
AIR FORCE HIGH COMMAND



SOURCE: Defense Intelligence Agency, Handbook on the Soviet Armed Forces, (Washington, D.C.: Government Printing Office, 1978), p. 10-8.

APPENDIX 4

RELATIONSHIP OF SOVIET AIR FORCE TO THE MINISTRY OF DEFENSE



SOURCE: Defense Intelligence Agency, Handbook on the Soviet Armed Forces, (Washington, D.C.: Government Printing Office, 1978), p. 10-5.

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